

The *Amateur*  
RCEME  
QUARTERLY



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## Cover --

Drowned half-track being winched from Imjin River, Korea, by armoured recovery vehicle of 191 Workshop (see also page 8).

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1951

Oct

1951



# Col E.C. Mayhew Appointed D.A.D.



**C**olonel Earle Chandler Mayhew, B Sc, MEIC, P Eng, was born at Moose Jaw, Sask, and educated at Ross Collegiate, Moose Jaw, the Royal Military College and Queen's University, Kingston. Joined the RCOC in 1934 and attended the Ordnance Mechanical Engineers Course at the Military College of Science, Woolwich, 1936-37. Following a year of attached duty in the UK he was posted to National Defence Headquarters. During World War II he served with the Inspection Board of the UK

and Canada; the IV Armoured Division; and as DDME at Army HQ. He was promoted to his present rank in August 1944, and was seconded to Canadian Arsenals Ltd in February 1946, first as Chief Engineer, then as Director of Ammunition Production.

Colonel E. C. Mayhew took up his appointment as Director of Armament Development at National Defence Headquarters on 15 September 1951. We wish him every success in his new appointment.



EDITOR-IN-CHIEF : . . . . . COLONEL C. R. BOEHM, MBE  
EDITORS . . . . . LT COL S. STUCKEN  
WOH D. C. PATERSON

|                              |                      |
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| LT COL H. W. HAGEY           | CO 202 BASE WORKSHOP |
| LT COL E. W. COLEMAN         | CO 17 COY RCME       |
| LT COL J. R. DUNLOP, OBE, ED | CO RCME SCHOOL       |

(Please turn to page 11)

## 191 CDN INF WORKSHOP

# IN KOREA

by Capt C H Betts, RCEME

**M**id-July found 191 Workshop RCEME set up and hitting on all cylinders at a location near a typical Korean village located a few miles north-east of Seoul. The workshop had been at this site for over six weeks. At that time, the activity of the 25 CIB combat troops was confined largely to patrol action in the western sector, in the vicinity of the Imjin River; the front lines were some forty miles in advance of the workshop location. The 25th Support Workshop, at this stage, was set up at Pusan.

The road from the RCEME School to Suwon had been a long tough grind for 191 Workshop, and it was with some measure of pride and satisfaction that those concerned reflected what had been accomplished in travelling that road during the past year; personnel, many of them new to the ways of army life, had been assembled and

given preliminary training at the RCEME School during the autumn months of 1950; in November, the unit had moved, along with the remainder of 25 CIB, to Fort Lewis, Washington, where we remained until the following spring; in late April, we crossed the Pacific to Pusan, arriving there on 4 May; then, after thirteen hectic days in Pusan came the unit's first convoy, a journey of over 300 miles to the concentration area near Suwon. At that time, the Communist spring offensive had just come to a grinding halt at the gates of Seoul. In the weeks that followed, the workshop occupied various positions between Suwon and Seoul. Early in June, with the front lines moving ever northward, we advanced to Uijongbu, this small Korean village which but a few short weeks before had been the scene of bitter battles between the Communist hordes and the UN forces.

Lt-Col Dunlop wishing the unit bon voyage at the RR Station in Kingston. (l to r) Lt J Peters; Lt H S Fleming; Capt C H Betts; Lt J A McKinnon; Medical Officer; Major R E Hallam; Lt-Col J R Dunlop; Capt E W Cole. Others identifiable are: Sgt Cameron; Cfn McMahon; Cfn Saunders; Cfn Beatty; S/Sgt Rutherford; S/Sgt Molnar; Spr Bradley; Cfn Laviolette; WOII Gilbert; Cfn Bobette.



When we boarded the troop train at Kingston in November, it was with the understanding that we were Okinawa bound. Fate stepped in, however, and after a most pleasant journey across the continent, we bogged down at Fort Lewis. All considered, our five month stay at this sprawling US army camp was an enjoyable one and of real value to the unit, despite the fact that we were unable to participate actively in any of the numerous field exercises that were conducted there. Our inability to take part in such schemes was attributed in some degree to the extremely heavy commitment occasioned by our role of maintaining the Brigade's equipment, but the real reason was the lack of unit transport; during our sojourn at Fort Lewis, vehicles on issue to the unit comprised in terms of quantity less than one half of the authorized complement. Needless to say, this state of affairs did present its problem!

The opportunities afforded in this static location for in-job training were excellent and we took full advantage of them. In anticipation of the need for workshop security measures in the theater of operations for which we were destined, emphasis was placed on this aspect of training and all concerned were given their share of guard duty. To all of the 25th, the colorful ceremonial parades staged during our stay there were highlights in our lives, and in these shows the boys of 191 took second place to none. The one rather nasty aspect of our tour at Fort Lewis was the cold miserable rain; we frequently debated, after reaching Korea, which was worse -- the Fort Lewis rains or the Korean dust!

The Brigade set sail from Seattle about mid-April, travelling aboard three steamers, each carrying between 3000 and 4000 troops. The ships travelled separately, via the so-called northern route, passing within sight of the Aleutians. For 191 Workshop, the 14-day, 5,700-mile journey across the Pacific, from Seattle to Pusan, was most enjoyable. Although the food left much to be desired, life aboard ship was rendered quite bearable by such features as the ship's daily paper, the Captain's dinner, and the Van Doo's singing. There were duties for all, and the RCEME boys, always the opportunists were not long in cornering all the cushy jobs -- ranging from mess stewards to electricians. Given another two days at sea, the Captain would have had no alternative but to hoist the RCEME flag!

On May 4th, the US transport with 191 Workshop still aboard, steamed into the port of Pusan. After a seemingly endless four hours for disembarkation, carried out to the strains of a US Marine band and the enchanting smiles of a welcoming party of Korean beauties complete with native costumes and bouquets, we were on our way to our first workshop site -- a mudhole on the outskirts of Pusan. To all of 191 Work-



Cfn McMahon

shop, the days spent there preparing for the move up to the brigade concentration area will not soon be forgotten; the tasks of deprocessing brigade vehicles, unpacking and binning stores, and readying our equipment -- much of which had been waiting for us there -- necessitated our slugging and sweating at full steam, from dawn to dusk, seven days a week. During this period the Support Workshop, which also had set up in Pusan, carried the RCEME ball for the brigade.

About the middle of May, the brigade moved up to the concentration area near Seoul, the convoy being conducted under US control and in accordance with US procedures. In view of the large number of troops other than Canadian which were travelling the same road, that famed historic invasion route between Pusan and Seoul, it was of utmost importance that this and other aspects of convoy procedure and discipline be followed to the letter. The journey of over 300 miles was completed in three days, with staging camps at Taegu and Taejon. Generally speaking, the move went off quite smoothly; recovery sections together with repair elements followed each day's convoy, but we relied entirely on US resources for static recovery and repair parts. They were well organized along the route and proved most helpful. RCEME, as usual -- this time 191 Workshop -- brought up the rear.

Along the narrow, rough, dusty road that spirals its treacherous course over hills and mountains, winds its way through countless villages, and bridges acres of rice paddies, the sight of burned out tanks, shattered homes and shell-pocked fields, served as mute evidence that this had been the path over which a modern war machine had rolled its crushing wheels not many days before.

On 20th May, 191 Workshop was sited at 'K-Town', a location between Suwon and Seoul, and at that time about twelve miles behind the





Cfn Beatty

front lines. The long months of planning and preparation were over, and we were set up and ready to do our job -- to keep the brigade's equipment rolling and serviceable for battle.

It is beyond the scope of this article to deal with the almost countless aspects of workshop field operations in the Korean theater. Suffice it to say that all concerned are finding their busy days and nights fully occupied with such routine matters and sticklers as workshop siting and layout; workshop movement procedures; unit accommodation; security and defence measures; trade testing; personnel rotation; control procedures; Part 1 Orders and casualty returns; back-loading; spare parts scaling and procurement; team maintenance; vehicle and telecommunication equipment inspections; recovery post siting; unit welfare; and, of course, equipment modification and repair.

For instance, workshop siting invariably posed a knotty problem, owing to the marked shortage of suitable sites in Korea; we had been warned by all and sundry of this cold, hard fact before reaching the theater, and when we sailed into the port of Pusan it was with visions of having to set up the workshop with the various sections distributed over an appropriate number of mountain peaks! Fortunately, things were not quite that bad, and we somehow always did manage to find sites with a preponderance of good features.

The straw and mud huts so characteristic of the Korean scene do not lend themselves in any way, shape, or form, to housing infantry brigade workshops, with the result that it was always found necessary to set up under canvas in sites remote from the squalor of the war-torn cities and villages. Squad tents of 14-man capacity were utilized for living accommodation, while covered working space was provided by workshop maintenance shelters of US pattern,

canvas penthouses, and lorries of various designs. The office-type lorries on issue to the unit have proved ideal for such uses as the orderly room and control office; at the time the writer bade adieu to the unit -- the latter part of July -- the boys were busily engaged in overhauling the heating systems of these lorries in unpleasant anticipation of the long, cold winter months ahead!

The workload, to say the least, is a heavy one; and for all hands, such luxuries as 40-hour weeks, passes and leaves are nothing more than fond dreams and hopes.

If what is claimed about an army marching on its stomach is true, then there should be no holding the troops of 191 Workshop in Korea. The American type rations leave nothing to be desired in respect to either quality or quantity, and the efforts of the unit's cooks always have been most commendable indeed.

Millions of words, both written and spoken, have flowed from countless sources about the dirt, and, to us, the poverty, and unwholesome living conditions of the Korean natives. Such words, no matter how descriptive or flowery, could never succeed in painting the true picture; deep appreciation of just what those words are attempting to convey can be gained only by one means -- personal experience. In all fairness to the country and its people, however, one must bear in mind that we as soldiers in the UN armies are seeing the country at its worst, in a state of full-scale war.

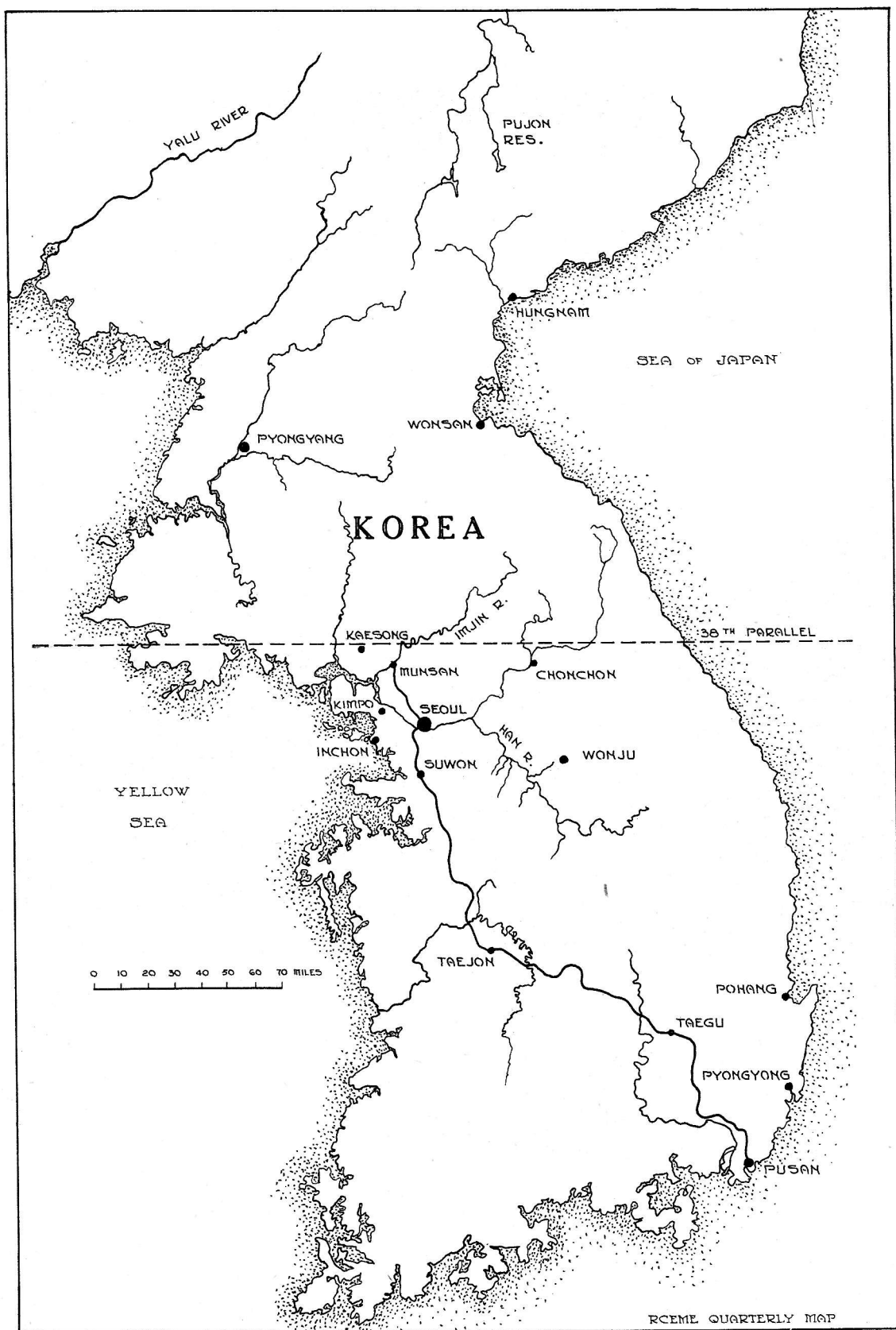
The morale of the troops is good, in spite of the oft-expressed desire to get home to the comforts of normal civilization and life. Excellent mail service, good old NAAFI beer, a local pattern 'Rube Goldberg' shower unit, organized sports in the form of softball, volleyball and horse-shoe pitching, tri-weekly movies, and reading material, all do their bit towards rendering life a little more pleasant.

Although the unit is concerned primarily with the aches and troubles of 25 CIB, the troops of our UN comrades in Korea -- Americans, Turks, Britons, Koreans, Australians, New Zealanders, Greeks, Philipinos, Ethiopians, etc -- are frequently the grateful recipients of 'service-with-a-smile' from the boys of 191 Workshop. Such associations are indeed grand and unique experiences for all concerned and never fail to leave one more than ever firmly convinced that we are fighting on the right side -- the side of right.

---

## PASS IT ON

When you have finished this magazine PASS IT ON.



# RECOVERY

## On the Imjin River, Korea

Web feet aren't absolutely necessary in the Royal Canadian Electrical and Mechanical Engineers but they may help a lot.

Recently two Canadian half-truck vehicles temporarily lost to the flood-swollen Imjin River in Korea were dragged out by RCME recovery crews.

The vehicles were abandoned some days previously by troops crossing the frontline positions of a French-Canadian regiment after heavy rains had caused the Imjin to rise several feet overnight.

Covered by a screen of infantry and tanks, the recovery crews, under command of Capt H.





E. McLaughlin of Toronto, worked nearly all day in 'no man's land' to retrieve the trucks. They were aided by a motor launch supplied by an American engineering unit.

The crews attempted four times to haul a cable across the fast-flowing river only to have the line snag and foul on the bottom. Finally using a light wire, the cable was pulled across and attached to one of the half-tracks.

The powerful current swept right over the top of the vehicle at one point as it was slowly hauled out. The whole procedure was repeated and the second truck recovered.

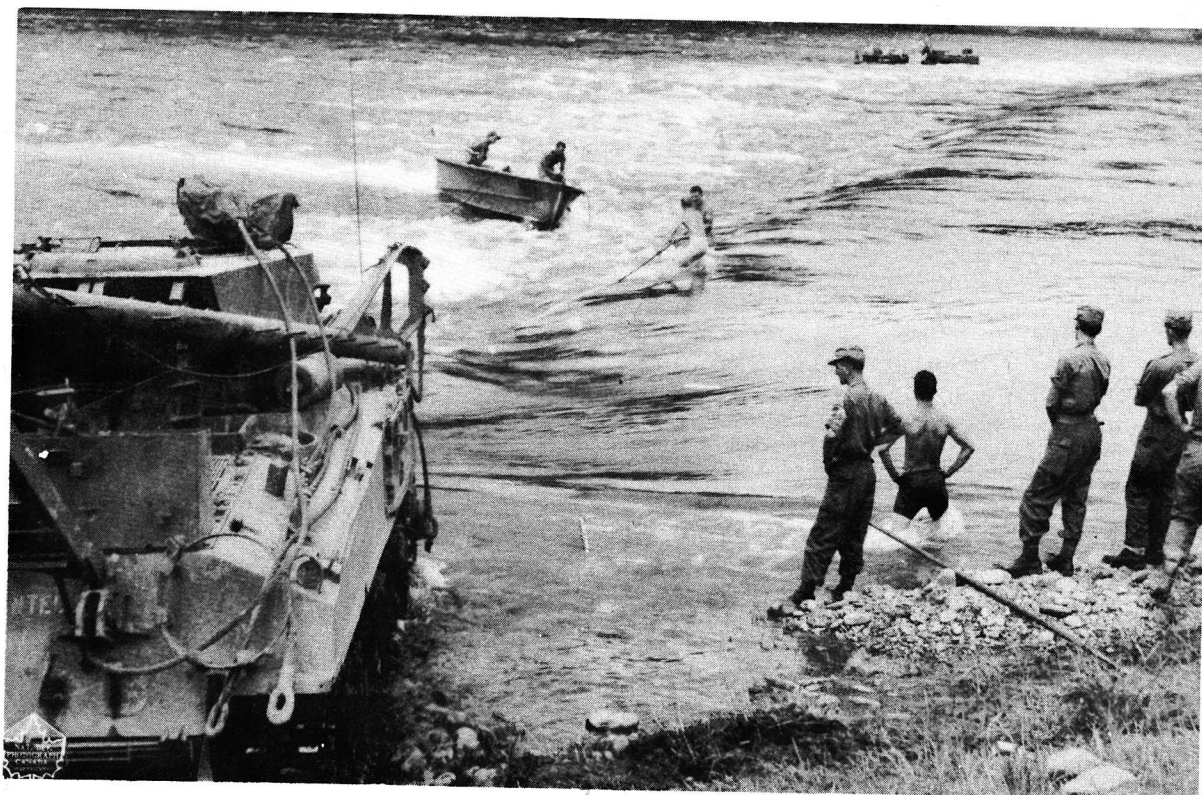
Left:  
Half-track being winched out of the river.

Right:  
Recovery crew studying the problem.

Below:  
Overall picture of the operation, showing the armoured recovery vehicle in the foreground, the American motor launch, and the 'drowned' vehicles.



Canadian Army photographs







# The RCME

This RCME cadet team won the tug-of-war:

front row (l to r) D McGrath, University of Sask; A Cleveland, University of Sask; P Preville, RMC; Rod McLeod, University of Sask; Colin Edie, RMC.

rear row (l to r) John Sworder, University of Sask; Bruck Boyd, RMC; J R Brydon, University of BC; John Reid, RMC; John Clark, Royal Roads; J E Andrego, University of Sask.

Photos by C. Semple

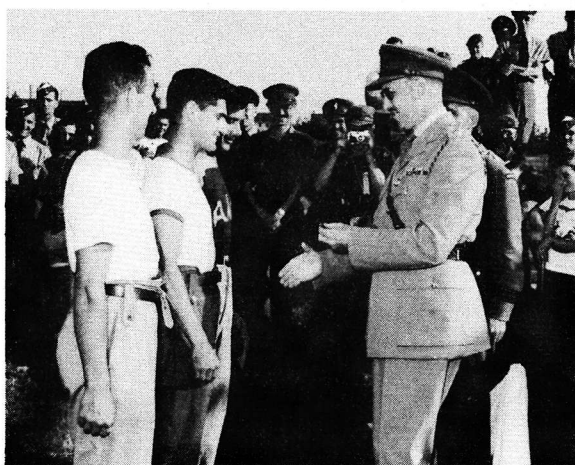
OFFICER CADETS FROM THE RCSS, VIMY, THE RCME SCHOOL, BARRIEFIELD, AND FLIGHT CADETS FROM RMC KINGSTON, TAKE PART IN A COTC SPORTS MEET AT THE RCME SCHOOL.



O/C John D MacDonald, St Francis Xavier University taking a jump in the running broad jump.

The men from RMC won the team trophy here being presented to F/C A Ramsey by Lt-Col Dunlop.

Lt-Col J. R. Dunlop, OBE ED presenting the trophies to the winners of the three mile race, (l to r) O/C J. P. Cossette, University of Montreal, third place; O/C Andre Gilbert, Loyola College, second place; F/C Preston, University of Toronto, winner.



# E School

Under an arrangement of the North Atlantic Treaty Organization (NATO) Sgts M. P. Schoots and G. W. Akkerhuis of the Signal Corps, Royal Netherlands Army, attended the RCME School, Barriefield. They were there from Sep 50 to May 51, observing Canadian methods and taking instruction in radar equipment.

As a mark of the esteem in which the two sergeants were held in the Sergeants' Mess, they were presented with beer tankards, suitably inscribed, on behalf of the Mess by Lt-Col J. R. Dunlop and S/Sgt MacDonald, PMC.

Sgt Schoots wrote a very gracious letter of appreciation on behalf of himself and Sgt Akkerius for the friendly way they had been received at the School. The letter follows:-

Montreal, 10th May 1951.

TO: PMC Sergeants' Mess  
The RCME School

FROM: Sgt M P Schoots,  
Royal Netherlands Signal Corps.

Dear Sir:-

Before we leave Canada, I want to, also on behalf of my friend Gerry, express my feelings of deepest kindness to you and all the members of the Mess in which we have had such a wonderful time.

We always will remember your hospitality and the being at home feeling you have given us in the time we were your guests.

We are also aware of the fact, that since we had such a short notice, we forgot to shake hands with people we would have liked to, so we ask you the favour to read this letter in the next Mess Meeting and greet all the members as being our best friends.

And remember all of you, if you might visit our country don't forget to look us up in the Signal barracks at Utrecht.

Once again our deepest regards to you and all the members and their families.

Yours sincerely,  
Gerry and Rec



Standing (l to r) Lt-Col Dunlop, Sgt Schoots, Sgt Akkerhuis, S/Sgt H. C. MacDonald PMC Sergeants' Mess. Major G. L. Lodge is seated at extreme left.

(EDITORIAL continued from page 3)

In the comparatively short time for which Statistical Quality Control has been in use, its bibliography has reached impressive proportions. From the point of view of the production superintendent, the inspector, or the mathematician, it is a most interesting subject, and it should indeed be known to all engineers.

We considered commissioning a brief account of the process for the RCME Quarterly, but we have abandoned the idea. This is partly because of the difficulty of covering the subject properly in one article, and partly because it is acknowledged that it can only be applied with best results to the quality control of items made in quantities of 5,000 or more, with possibly 1,000 as a minimum total production. These quantities are, of course, not obtained in the case of any Workshop now operating under RCME control.

However, we are prepared to reconsider our decision provided we hear from our readers that they would like us to do so, and so keep them in touch with current civilian workshop practice.

## PRODUCTION

"Despite the finest facilities and the most expert medical science, some things still take nine months. Rabbits can be made in 30 days, elephants take 641!"

--General Knudson  
US World War II Production Boss

# The 4th TECH REGT

by Lieut E Wilson, RCEME Reserve Force

The 4th Tech Regt RCEME (Toronto) has participated in considerable and varied activities throughout the spring and early summer. Training continued on Monday and Thursday evenings, terminating with the Toronto Garrison Church Parade on 3 Jun.

Perhaps the most interesting activities (certainly the operations which developed the most enthusiasm) were the various schemes in which the regiment took part. These included co-operative schemes with other units as well as those operated solely for the training of craftsmen and junior NCOs in our own unit.

The conveying of the 42nd and 32nd Artillery Regts from Toronto to Meaford range and return gave everyone concerned an opportunity to practice co-operation and organization. Convoys generally left the city Friday evening, arriving in Meaford as late as 0500 hrs the next day. Problems encountered enroute included changing of wheels on 5.5 inch guns; engine breakdowns on towing vehicles; shortage of spare parts; flat tires and even lost vehicles. On one of the operations all these things took place during continuous rain.

Morale was excellent, however, even when everyone was rolled out at 0700 hrs in Meaford after a trying night in convoy.

Many of the newer members of the 4th Tech Regt were badly in need of driver training, so a scheme for their benefit was conducted to Camp Borden with Lieut R. L. Leavitt in charge (See also "We Entertain a Reserve Unit" by Major J. W. Whittingham, page 19).

With the co-operation of 205 Base Workshop some map reading and recovery were worked into the scheme. COTC cadets were sent out to 'ditch' a vehicle. Lieutenants Leavitt and Douglas (4th Tech Regt) individually conducted recovery teams to rescue two such vehicles. This took place on Saturday; all day Sunday was spent in putting drivers through a test course laid out in the camp area. The unit was able to qualify several new drivers.

Major J. M. Harding, 2IC 4th Tech Regt and Major W. Ackhurst, a Squadron Commander acted as observers during the operation and expressed themselves as well satisfied with the

results obtained.

This scheme led to RCEME sending an LAD to Camp Borden the following week with a RCASC convoy, and were able to carry out their functions successfully in getting the convoy safely to its destination.

On the week-end of 1 Jul a different type of operation was undertaken. The 32nd Medium Regt had decided to drive to summer camp at Petawawa (316 miles) and tow their guns with them. The 4th Tech Regt was asked to provide an LAD to take care of casualties enroute.

Capt R. Austin, Composite Garage, Toronto, proved very co-operative in obtaining a large assortment of spare parts such as carburetors, fuel pumps, coils etc. He was also instrumental in getting a Mack Breakdown vehicle from the 29th Tech Sqn at Oshawa to replace the unit vehicle which was in the shop for repair.

The convoy left Toronto Saturday morning at 0900 hrs and proceeded east to Whitby before turning north to Minden, where the first casualty occurred. A retaining pin came loose through vibration, but it was noticed in time and was repositioned before any damage was done. Shortly after that an unfortunate breakdown happened which brought red faces to RCEME: the breakdown recovery vehicle became a casualty because of a flat tire. The artillery regiment continued on its way but it was nearly three hours before RCEME again got going since no spare tire was carried.

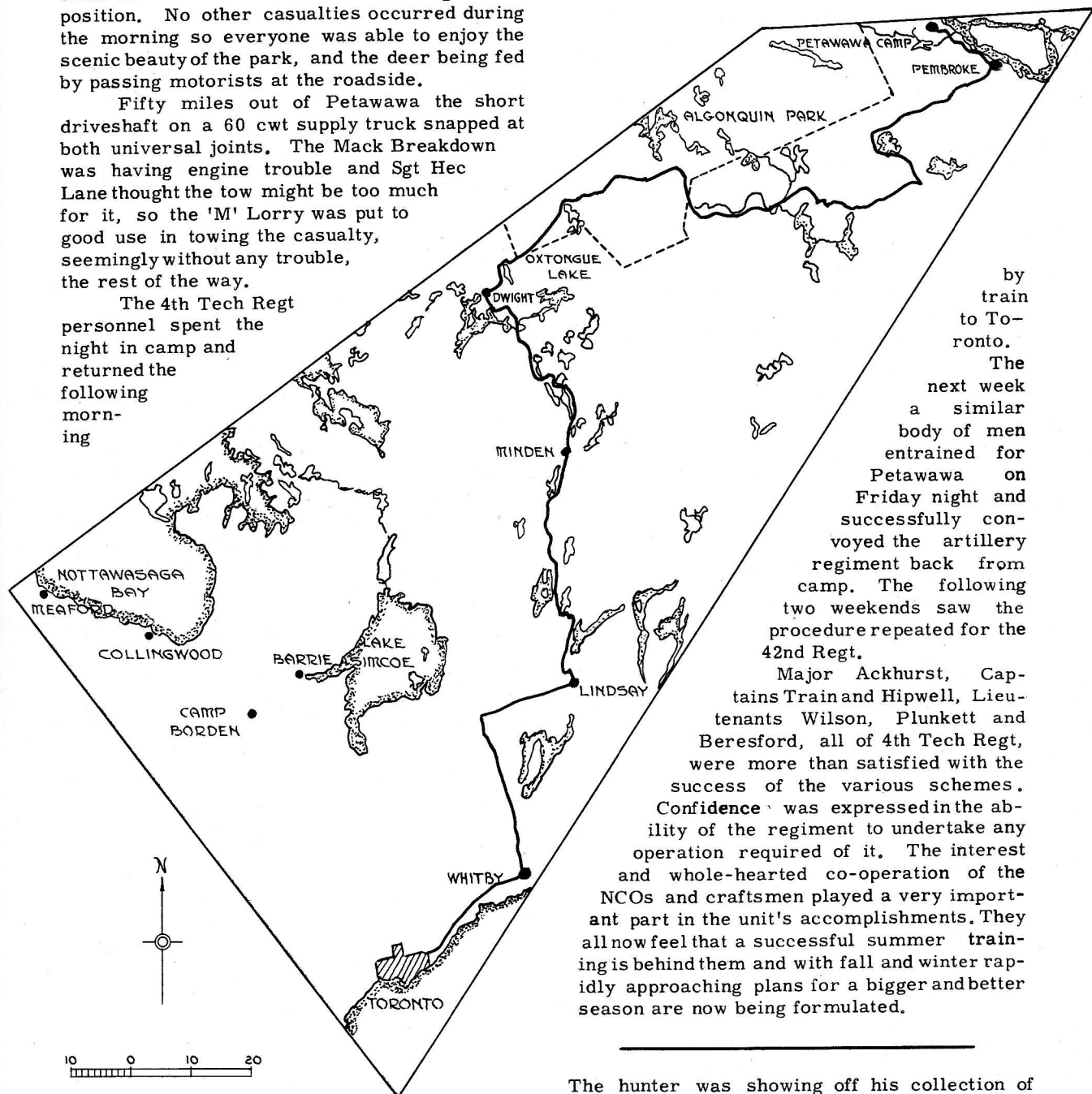
Until bivouac was reached near Dwight (175 miles) there was no further serious trouble. Minor ailments such as blown fuses and shorts in lighting circuits were soon remedied. The warm welcome provided by the 32nd Regt helped everyone forget the hardships of the day and restored the best of good humor. (I might say here that they were extremely hospitable to officers and men in providing food, tent shelter, blankets and bar facilities.)

Sunday morning after early ablutions in Oxtongue Lake, almost within the boundaries of Algonquin Provincial Park and a breakfast that went well with the frosty air, the convoy rolled out on the highway at 0800 hrs.

We had been on the road not more than four miles when one of the guns broke loose. The barrel locking bracket parted from the rest of the frame and an hour was lost welding this in position. No other casualties occurred during the morning so everyone was able to enjoy the scenic beauty of the park, and the deer being fed by passing motorists at the roadside.

Fifty miles out of Petawawa the short driveshaft on a 60 cwt supply truck snapped at both universal joints. The Mack Breakdown was having engine trouble and Sgt Hec Lane thought the tow might be too much for it, so the 'M' Lorry was put to good use in towing the casualty, seemingly without any trouble, the rest of the way.

The 4th Tech Regt personnel spent the night in camp and returned the following morning



by train to Toronto.

The next week a similar body of men entrained for Petawawa on Friday night and successfully conveyed the artillery regiment back from camp. The following two weekends saw the procedure repeated for the 42nd Regt.

Major Ackhurst, Captains Train and Hipwell, Lieutenants Wilson, Plunkett and Beresford, all of 4th Tech Regt, were more than satisfied with the success of the various schemes. Confidence was expressed in the ability of the regiment to undertake any operation required of it. The interest and whole-hearted co-operation of the NCOs and craftsmen played a very important part in the unit's accomplishments. They all now feel that a successful summer training is behind them and with fall and winter rapidly approaching plans for a bigger and better season are now being formulated.

The hunter was showing off his collection of trophies to a group of visitors. He was explaining how he had acquired the various exhibits.

"See that elephant?" he said. "I shot it in my pyjamas."

"My goodness," murmured the surprised young lady, "how did it get them on?"



# RESERVE FORCE CAMP

by Capt J.H. Coombe CD, RCEME

This year through a change in policy, the Corps Training portion of The Reserve Force Summer Camp was conducted at The RCEME School.

In previous years this training was carried out at Petawawa; however, the accommodation factor necessitated a change in location which has been welcomed by the candidates and has proven the point previously made by many that the Corps School is a more suitable location for this training.

This year, as formerly, the A & T Staff were still responsible for carrying out the training even though it was held at the Corps school. The A & T Staff has gradually been reduced to but a few members and the writer was handed the problem, being the last remaining officer on A & T in this Command.

In view of the heavy load placed on the RCEME School by the stepped-up recruiting and the RCEME commitment for 27 CIB, very little assistance other than accommodation facilities could be expected or provided. This situation demanded that practically all the instructional and administrative personnel had to come from outside The RCEME School. This was effected by the administrative and instructional personnel from HQ 3 Coy RCEME and 207 Wksp amplifying the few remaining A & T Staff.

These officers and men were formed into a RCEME PLATOON, Reserve Force Training and were made responsible for the organization, administration and the conducting of the training courses. The Corps Training programme varied somewhat from former years as conducted at

A demonstration of RCEME Units in the inf and armd divs.

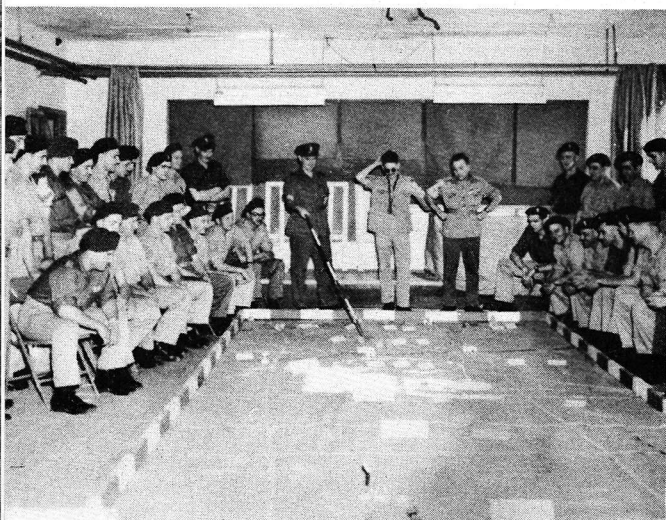
Petawawa. Two separate courses were available to cover all requirements, from a recruit to the most senior officer attending. In view of the few applicants for the Second Year Command Contingent training, it was not possible to conduct a separate course. However such personnel were phased in on the existing courses as applic-



Top row -- (l to r) 2/Lt C F Lund; 2/Lt B R Bradley -- 24 Tech Sqn; 2/Lt R Berthume; 2/Lt J G Crepeau -- 2 Tech Regt;  
Third row - Cfn M Reed; Cfn M Taggart; Cfn L Stone -- 26 Tech Sqn; Lt H D Plunkett -- 4 Tech Regt;  
Second row - Cpl O Allard; Cfn E Blakey; Cpl J G Legault; Cfn W D Tannahill; Cpl Labelle -- 26 Tech Sqn;  
Front row - Sgt W E Wittenberg; Sgt F Landry; Sgt G Carriere; Sgt L M Robillard -- 26 Tech Sqn.

able to their syllabus. The Junior Courses termed "Corps Training Block III", was based on the practical aspect of the previous local headquarters training, and provided the final phase of the qualifying requirements for the special-to-corps portion of the training.

The Advanced RCEME Course was open to all ranks of sergeant and above who had previously completed Corps Block III or equivalent. The training was conducted on a syndicate basis of three persons per syndicate. The syndicates



## TOP

### 4th Tech Regt — Toronto

Back row (1tor) Sgt H E Fowler; Sgt J A Jennings; Cpl W E Smith; Sgt L Fox;  
Centre row — Sgt R W Jones; WOII F R H Davison; WOII G G Forward; Sgt E R F Lane; Sgt T Jones;  
Front row — Lt R Leavitt; Capt F O Hipwell; Lt-Col Les Brodie; Capt B K Train; H/Capt C C Brazill; Lt S C Hepburn.

## CENTRE

### 5th Tech Regt — Hamilton

Back row (1tor) Cfn G E Appleyard; Cfn F L Knox;  
Front row — Lt N E Hudak; Lt F D Priestly; Maj L R Bergklint; Capt T N Christilaw.

## BOTTOM

### 6th Tech Regt — Windsor

Top row (1tor) Cfn H J F Kachler; Cpl R Beck; Sgt A D McRae; A/Sgt R B Cunningham; A/Sgt S Sobie; S/Sgt S J Lee;  
Centre row — A/Sgt H B Stull; S/Sgt H G Herage; WOII V J Graham; WOII J Stark; WOII F Archer; WOII H McLelland;  
Front row — WOII F Turner; WOII K V Morrison; WOII W R Varcoe; Lt L Hampton; Lt D Campbell; WOII T E E Slater; WOII F A Pearce.

comprised personnel in rank from sergeant to lieutenant-colonel. This arrangement permitted a distribution of rank and experience which worked out very well and resulted in greater class participation, bringing out more ideas and individual effort.

This course, termed 'Exercise Fixit', provided a series of narratives depicting various situations in a theatre of operations, followed by RCEME problems. The students, by syndicates, worked out the answers to the problems and finally applied the solution on the ground in the practical phase.

The students in the Advanced RCEME Course welcomed this change in the method of conducting Corps Training. The general opinion was that it provided the individuals with not only knowledge for themselves, but ideas and methods of conducting training which could later be used at local headquarters, making the work more interesting and fostering enthusiasm.

A conducted tour was made to 207 Workshop Barriefield and to each of the Training Companies of the RCEME School. This too was considered of value, in that it provided Reserve Force personnel with an opportunity of becoming familiar with Active Force methods of training and the use of various training aids. Furthermore it permitted a discussion of training prob-





#### TOP

##### 28th Tech Sqn -- Peterborough

Top row (l to r) Cfn E J Duncan; Cfn D Adams; Cfn M F Green;  
 Third row -- Cfn M E Clarke; Cfn G E Heigh; Cpl W Reynolds; Cpl H A Lavoie;  
 Second row -- Cpl J A Pilling; Sgt F L Johnston; Sgt W G Deck; Sgt G H Hodgson; Cpl G F Newton;  
 Front row -- Sgt W A Cross; S/Sgt W E Gaunt; WOII W G Thraves; Capt R R As-selstine; Lt W R Knight; S/Sgt J M Young.

#### CENTRE

##### 29th Tech Sqn -- Oshawa

Top row (l to r) Cfn D A Davidson; Cfn D Dulmage; Sgt E M Parish;  
 Front row (l to r) Cfn J A Lee; Sgt J Coros; Lt J E Brown; Sgt A A Hurst; Cfn R K Par-ish.



#### BOTTOM LEFT

##### 34th Tech Sqn -- Sault Ste Marie

Back row (l to r) Cfn A A Trainor; Cfn W C Stenbol; Cfn A E Lavallee;  
 Centre row -- Sgt J A Shuttleworth; Cpl N S Greco; Cfn E F Armstrong; Cfn T I Mc-Craig;  
 Front row -- Sgt R P Burton; Lt D H Stan-ton; Capt C E Makepiece; WOII W F Chal-mers; Cpl J J LaRue.

#### BOTTOM RIGHT

##### 33rd Tech Sqn -- Sudbury Ont

Back row (l to r) S/Sgt W B Scott; WOII H R Dinnes; S/Sgt N Gifford; WOII J Dusick;  
 Centre row -- Sgt L J Bourcier; Lt L M Ramsey; Lt F Jardine; Sgt G G Telford;  
 Front row -- Capt N Castonguay; Lt T L Pickard; Maj D Forster; Capt G O Machum; Lt T J Baker.





lems with instructors, an opportunity to view a 2nd Line RCEME Workshop layout, and a better appreciation of RCEME accounting procedures. The colour dynamics of a RCEME Workshop layout created much interest.

Class critique was instituted at this summer camp. A written criticism was submitted at the conclusion of the course by each student, based on suggested headings. The purpose was to bring out constructive criticism of all aspects of the camp and training in order to help plan a better course next year.

At the end of training on the Friday night of each of three separate weeks of camp, an all-ranks party was held with representative members of The RCEME School attending. All ranks of the Reserve units attending camp during the particular week provided a good part of the talent for the entertainment, and for variety, members from the School contributed too, adding to the spirit of the evening.

Following the festivities of the evening before, Saturday morning was utilized for a general discussion of the week's courses and for clearing camp. Some people found that it was easier to get into The RCEME School than to take leave of it.

It was evident that the school was preferred to Petawawa as a location for RCEME Corps Training. Everyone attending was most appreciative of the type of training and subject material provided this year and of the opportunity of seeing the methods used in training their counterpart in the Active Force. Next year should see a bigger and even better summer camp.

## 6th Tech Regt

by WOII Mark Cullington RCEME

The 6th Tech Regt Windsor wound up their spring training participating in two week-end schemes. The first-one, a purely regimental affair was held on Saturday and Sunday 12th and 13th of May at Cedar Springs Camp for range practice. The advance party of two

other ranks with WOII Vic Graham in charge left the barracks at 0830 hrs. The main body left at 1100 hrs and a rear party consisting of those who had to work on the Saturday left at 1800 hrs.

Camp discipline went into force immediately upon arrival and the unit was well settled down before nightfall. Revielle on Sunday was at 0700 hrs and immediately after breakfast range practice was commenced. Capt Jos. Brown was range officer and each section took turns at the butts, Bren, Sten, and rifle practices were all fired by each man of the unit and the scores made were quite satisfactory. During the day Major F. R. Kaye, area EME paid a surprise visit to the camp and enjoyed the period of training.

The unit broke camp at 1700 hrs on Sunday and returned to barracks at 2200 hrs.

The second scheme was participation in Exercise Beaver II. The advance party of two officers and four other ranks under Capt P. A. Gill left at 1800 hrs on Friday June 14th in a 'K' lorry and a 60 cwt, arriving at the rendezvous at Cedar Springs Camp at 2100 hrs. The advance party set up recovery points, workshop location, and drew the necessary stores, etc. The main body of two officers and twenty-nine other ranks under the Officer Commanding, Major Don C Little, moved off from the barracks at 1130 hrs on Saturday with telecom lorry, two breakdown lorries, 'M' lorry, two 60 cwt and other equipment. A rear party consisting of all the men of the unit who were employed on the Saturday left at 1800 hrs with the balance of the units equipment.

Establishing contacts and getting all tuned up for emergencies took most of the time on Saturday until dark. The invasion landing took place on schedule and almost immediately the unit was called upon to do their stuff by recovering a Bren gun carrier from a creek where it had become a casualty. Next job was to replace caterpillar treads on another Bren gun carrier. A further call was made to tow a 10 ton Mack which had broken down and recover the gun it was towing.

Breaking camp at 1845 hrs on Sunday the return trip was made with no untoward incidents reaching the barracks at 2200 hrs. This scheme was one of the best efforts in training the unit

### CEDAR SPRINGS MAY 1951

Calling detail to advance to firing point, Lt Hampton acting as Range Officer. (1 to r) WOII K. E. Hines; WOII Jack McGowan; Cfn E. D. Hesketh, Lt L. E. Hampton; Capt Jos Brown (Training Officer) Major Don C Little (Officer Commanding) A. S. M. T. E. Slater; A. S. M. W. R. Varcoe; S/Sgt Don Ouellette.





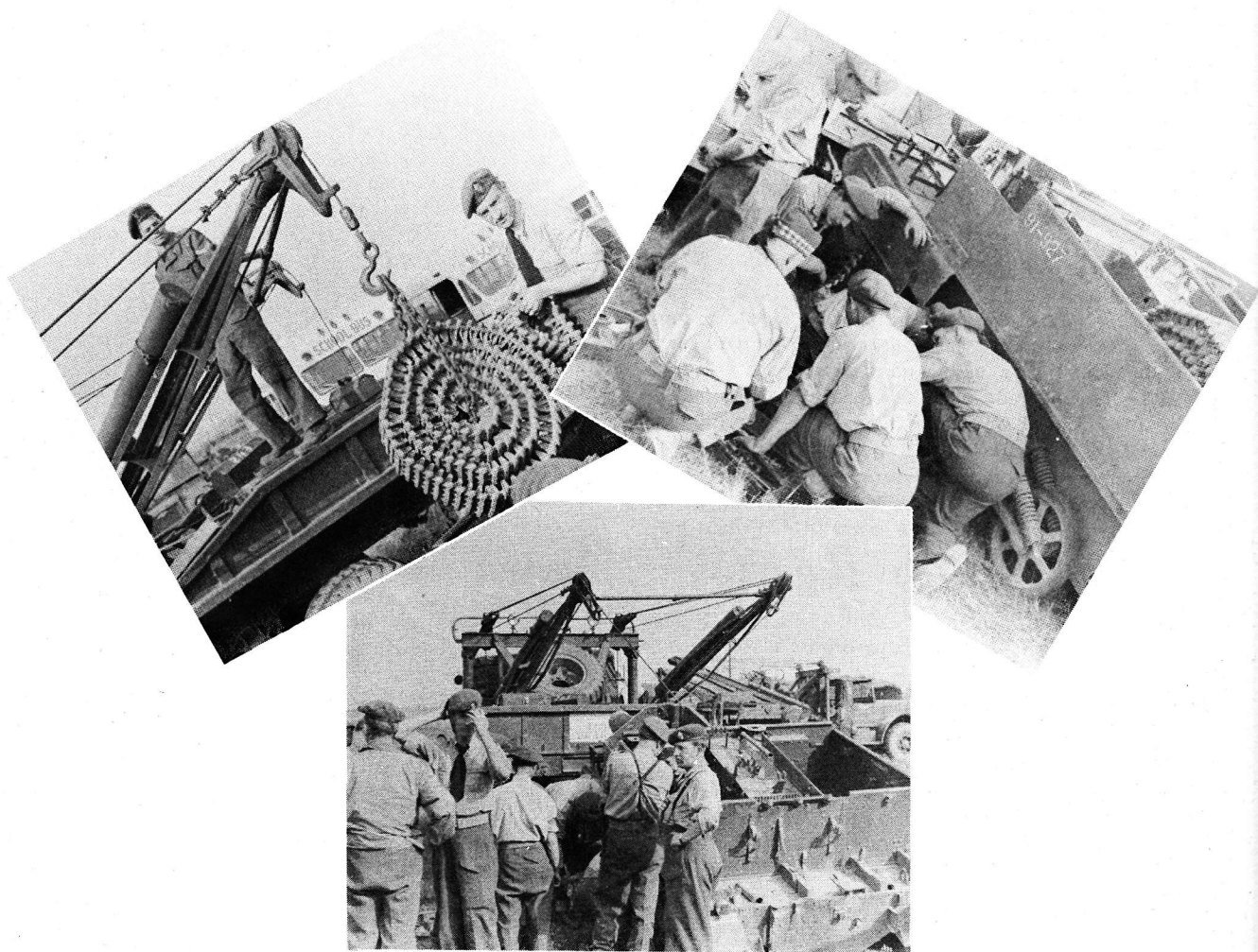
has had. Everything being on a war basis, there was an opportunity for all those attending to get some real working knowledge of wartime neces-

sities. It was agreed that more was learned in this exercise than in many hours of lectures etc.

## Beaver II, Jun 51

Changing tracks on a bren carrier (l to r) Cpl T L Tofflemiere; WOII Jack McGowan.

In consultation as to the best way to get the carrier moving quickly are (l to r) WOII Alex Archer; Cpl R Archer; WOII J McGowan, (the Essex Scottish Sergeant i/c the broken down carrier); S/Sgt H G Herage; WOII John Stark.



Recovering carrier from creek (l to r) Cpl R H Beck; Cpl F S Archer; Sgt H B Stull; WOII Jack McGowan; Cpl D J Boutette; Cfs J F Kachler.

# Camp Borden

## We Entertain a Reserve Unit

by Major J. W. Whittingham RCEME

From Friday 18 May until 20 May, 205 Base Workshop RCEME was visited by some seven officers, fifteen WOs and NCOs and twenty men of the 4th Tech Regt RCEME of TORONTO. Arriving Friday their QM drew blankets and equipment and proceeded to bed down, after which they visited the respective messes. Saturday bright and early, however, started with an extensive tour of the Workshop, where numerous demonstrations were set up for them. At 1300 hrs all vehicles were lined up in convoy and proceeded to Blackdown area where 205 Base Wksp had prepared a recovery scheme for them. After recce the workshop sites were chosen. Previously, under the direction of Maj J.W. Whittingham and Capt R.R. Logan, a wrecked 2 ton Dodge had been "spotted" in a washout some 20 ft below the road surface where it lay on its side in soft sand.

A decoy 3 ton Dodge was also spotted 50 yds from the wreck and it was felt that this might mislead the recovery crew. In addition five Officer Cadets had gone to another map reference with a jeep and were instructed to lay this on its side as a further decoy.

The plan was as follows: A message reading "Z cas 407217 2 ton Dodge suspended tow" was sent to OIC Wksp. He was to despatch Recovery Vehicle which would be interrupted and given the following message "Recovery urgently required 417217" (note similar reference in previous message). This was the locale of the jeep which was to be located on its side at the edge of the road in a flat ditch. It was expected the recovery crew would assume a mistake had been made in reading the original message and would in fact, recover the jeep.

Now Major Whittingham had given his map along with the map reference to the Officer Cadet but when he tried to locate them he found his map, although the same sheet, date etc, had different grid lines. The approximate location however was known so he and Capt Logan proceeded to this spot. But no jeep. The scheme then had to proceed without it as time was running short. The recovery crew did not fall for the 3 ton Dodge decoy but proceeded to the actual wreck and recovered it most efficiently in approximately 1-1/2 hrs. They next recovered the decoy.

Major M. Harding accompanied by Major Whittingham then proceeded on a recce for a proposed driving scheme for Sunday, and whilst so doing met the five officer cadets. They were at the correct map ref, but feeling that a jeep on its side in the ditch was not a very good recovery job, had taken the vehicle down a large sandy gully into muskeg some 200 ft from the road, and here it was stuck. They all seemed quite relieved to see Maj Whittingham in that it was now 1700 hrs on a hot, sticky day and they had been exposed to the flies, mosquitoes and sun for about 5 hrs, no water and no means of getting back to Camp (approx 6 miles) - remember the jeep was really a casualty now. A message however was sent to the recovery section, and another recovery was performed with equal efficiency. The unit returned to camp at approx 1830 hrs, tired, sunburned, bitten, hungry and happy.

Sunday they attended a special church service at 0900 hrs officiated at by their own padre, and from there to a driving scheme in the sands of Borden. Several minor recovery jobs were also performed as drivers unfamiliar with sand driving became buried.

The unit departed at 1400 hrs for TORONTO.

### TASK

Convoy work

Recovery

Recce & Loc of Wksp situ.

### COMMENTS

Good.

Excellent, although several ruses were tried they failed to mislead recovery crew from main effort.

Fair -- too much stress placed on air cover by loc wksp in close tree growth leaving little area for working space and personnel discomfort from mosquitoes flies, etc. Could possibly have deployed more. Although better sites were actually recce'd they were not used.

(Please turn to page 22)

# Cadets Hold Annual Inspection

**O**n 28 May 1951 at Provencher Park, St Boniface, Manitoba, the Provencher School Cadets, who are affiliated with 7th Tech Regt RCEME Winnipeg held their annual inspection.

The inspecting officers were:- Col J.B. Allan, Chief of Staff, representing the GOC Prairie Command; assisted by Major A. F. Moore, A/Comd EME; Major G. Robitaille, Officer i/c Cadet Services Prairie Command; Capt N. P. E. Fox, 2 i/c Cadet Services; and Lt-Col G. W. O'Neill, Officer Commanding 7th Tech

cooking in the field; a range practice display; and a lecture on the 36 grenade.

At the conclusion of the inspection the Chief of Staff presented to the cadets the Earl Roberts Empire Trophy, emblematic of the proficiency of the best cadet rifle team in the British Empire during the years 1950 and 1951. The trophy has only been won on one previous occasion by a Canadian team, in the year 1948, and captured at that time by a team from Montreal.

Personnel of 7th Tech Regt and NCOs of 10 Section A&T Staff assisted the cadets, under



Col Allan presenting the trophy to the team. (Gene Gauthier photo)

Regt RCEME.

The cadet bugle band played for the unfurling of the flag and the March Past, followed by several drills and exercises which were carried out with precision.

A display of army training equipment as used by the Cadets in the course of their RCEME training was shown. Included in the practical display was the setting up of a Command tels station; building of a 35 foot observation tower;

supervision of Brother Laurin, in setting up the equipment for the display.

In a closing address to the cadets, Col Allan complimented the school on the high degree of efficiency attained by all ranks. Members of the St Boniface City Council and Chairman of St Boniface School Board attended the inspection and demonstration. The inspecting party and others were received in the Brothers' House at the conclusion of the exercise.



# 7th Tech Regt

## LIEUT-COL G. W. O'NEILL APPOINTED CO

**L**t-Col George William O'Neill was born at Amherst, Nova Scotia, Nov 21, 1898, and received primary and high school education at Cumberland County Academy of the same place. He later served an apprenticeship with the Robb Engineering Works Ltd and has continued in the employ of various subsidiaries of the Dominion Bridge Co Ltd ever since. He is at present on the designing and estimating staff of the Manitoba Bridge and Engineering Works Ltd at Winnipeg.

His military service started early when he enlisted 'at a tender age' in the 10th Siege Bty CGA, at Halifax, NS, proceeding overseas with a draft from that unit in 1918. In 1935 he joined the Canadian Machine Gun Corps in Winnipeg, as a bandsman, later transferring to 13 District Stores Section RCOC (both NPAM) at Calgary. After being commissioned in the 6th Army Field Workshops RCOC at Drumheller, on Jan 1, 1940, he was called out under GO 139 in June 1940, (attested Jan 25, 1941) and served at Calgary as OME (4th Class) for the ensuing year. Attended the 8th OME Course at Barriefield in 1941. Along with Lt-Col C. M. R. Elmsley, Maj G. Wright and Capt Montgomery, he carried out a special assignment at Debert, NS and Sussex, NB later in the same year. He was appointed Camp OME, Petawawa, with the rank of Capt in November, 1941, remaining there until December, 1942, when he returned to Debert as OC Armament Workshops. Was re-posted to Sydney, NS in August, 1943, in charge of a RCOC Workshop Detachment, covering all Cape Breton Island, remaining there until October, 1944. Was promoted to the rank of Major while on that assignment. Returned to Petawawa in October, 1944, with the appointment of Senior EME and remained until January 1946, when he received a posting to Calgary as DEME, MD 13. Returned to civilian employment in May, 1946, and was posted to the supplementary reserve. Accepted an appointment as Major and 2 I/C of HQ RCEME 6th Armoured Division (RF) under Lt-Col B. H. Miller, OBE, ED in March, 1949, which unit was designated 7th Technical Regiment, RCEME (RF) in July 1950. Lt-Col Miller moved to Edmonton in December, 1950, and O'Neill was appointed acting OC the Regiment, taking over command effective 6th March, 1951. Lt-Col O'Neill was recently awarded the Canadian Forces Decoration.

He is a member of the Engineering Institute of Canada, the American Society of Mech-

anical Engineers and is registered as a Professional Engineer in Nova Scotia, Manitoba and Alberta.

# 35th Tech Sqn

**T**he 35th Tech Sqn was activated 1 May 1951 at Ft William, Ont. Previous to this date there was no RCEME unit in existence at the Lakehead, but the nucleus from which this squadron was formed was a detachment from 7th Tech Regt in Winnipeg. This detachment was formed originally, in 1949, to act in a technical capacity to assist 67 LAA Regt RCA (RF) in repair and maintenance of its guns and vehicles. Tools and equipment were not readily available for this task, so the amount of work done and training performed were very limited. The strength of the detachment grew to one officer and twelve other ranks, and this offered an indication that there was considerable interest in a RCEME unit at the Lakehead.

The formation of a Tech Sqn was suggested, but the difficulties due to lack of trained personnel for A and Q, were the main stumbling blocks. Lt-Col L. E. Poulter, CO 67 LAA Regt, was very helpful in this regard, and offered the services of his staffs until such time as the unit could handle its own housekeeping. It is on this basis that the unit has been formed, and it is hoped that the year 1951-52 will see the enlistment of enough suitable personnel for the unit to become entirely self-supporting.

Equipment has started to come in, and if adequate housing can be found, this coming season should offer a good training program.

# Montreal Regts

## 2nd and 3rd TECHNICAL REGIMENTS HONOR RETIRING COMMANDING OFFICERS

**T**he officers of 2nd Tech Regt and 3rd Tech Regt (both Montreal) combined with members of the Montreal Group of the RCEME Corps Association to arrange a testimonial dinner in honour of Lt-Col L. I. Playfair and Lt-Col J. E. H. Stethem. Both of these officers have recently relinquished command of their respective regiments upon transfer to supplementary reserve. The new Commanding Officers, Lt-Col L. Martin, MBE (2nd Tech Regt) and Lt-

Col A.G. Edward, MC, DFC (3rd Tech Regt) acted as joint chairmen.

The facilities of the Officers' Mess of 25 Central Ordnance Depot, Longue Pointe, were placed at the disposal of the committee through the kind permission of Col E. D. Elwood, MBE, the Commandant.

Over sixty officers attended the dinner. Besides the regimental officers and members of the RCME Corps Association, there were officers from 202 Base Workshop and 4 Coy RCME.

Lt-Col L. Martin acted as toastmaster and Lt-Col A.G. Edward gave the toast to the guests of honour. Presentations were made by Major N. M. Kogan and Major K. D. Sheldrick on behalf of the officers of 2nd Tech Regt and 3rd Tech Regt. Both Lt-Col Playfair and Lt-Col Stethem replied briefly, thanking the gathering for their many good wishes.

Col W. C. Dick, OBE, Chief of Staff Quebec Command, representing Maj-Gen R. O. G. Morton, OBE, CD, GOC, paid tribute to the spirit of co-operation in the armed forces and especially between Active and Reserve Force units. He said that he felt such co-operation would result in a better understanding of the needs of the defence forces. Col Dick also suggested that with the many opportunities for advancement offered by the Canadian Army, young men in all walks of life should investigate these opportunities and consider the army as a career.

Lt-Col S. D. Clarke, chairman of the Montreal Group RCME Corps Association, proposed the toast to the Corps.

Col C. R. Boehm, MBE, DEME, replied to the toast. In his brief reply, Col Boehm stressed the need for more skilled men in the RCME Corps to handle the development and maintenance of the highly technical and specialized equipment of modern warfare.

Besides the guests of honour, head table guests were Col W. C. Dick, Col E. D. Elwood, Lt-Col W. E. Houston, MBE, Deputy Commandant 25 COD, Lt-Col S. D. Clarke, Major Mc-



(l to r) Lt-Cols Edward, Stethem, Playfair and Martin.

Larnon, Major Robinson representing Lt-Col Dunlop, CO the RCME School.

Other officers present were:

|                      |                        |
|----------------------|------------------------|
| Maj G. Marotte       | Maj K. D. Sheldrick    |
| Maj D. D. Campbell   | Maj A. H. Gilmour      |
| Maj N. Kogan         | Maj S. E. Jamieson     |
| Maj A. P. Benoit     | Maj B. Screaton        |
| Maj R. Grassby       | Maj N. Harris          |
| Maj V. Pollard       | Maj G. M. Hunter       |
| Maj P. F. Osler      | Maj W. J. S. Evans     |
| Maj M. Dolan         | Maj L. Bourbonnais     |
| Maj G. Turner        | Maj R. K. Fulford      |
| Capt A. S. Beddows   | Capt C. Racicot        |
| Capt J. T. Brennan   | Lieut W. J. MacKay     |
| Capt T. Rodden       | Lieut F. J. Tourangeau |
| Capt R. O'Neil       | Lieut S. Pike          |
| Capt B. Kelly        | Lieut G. Gauthier      |
| Capt L. Goulet       | Lieut Leger            |
| Capt D. McLaughlin   | Lieut D. Hampson       |
| Capt C. Carveth      | Lieut Paul Ancil       |
| Capt Yarymowich      | Lieut Jette            |
| Capt G. Shand        | Lieut Hogg             |
| Capt R. Bartlett     | Lieut Bahl             |
| Capt I. Macorquodale | Lieut Freeman          |
| Capt P. D. Falk      | 2/Lt Crepeau           |
| Capt MacDonald       | 2/Lt Charbonneau       |

4th TECH REGT AT CAMP BORDEN continued from page 19

#### PROPOSALS FOR SUBSEQUENT SCHEMES

- |                                                                                                                                                                                              |                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <p>1. <u>TIME</u></p> <p>Scheme should be for entire day or week-end, meals being eaten in situ, permitting more scope.</p>                                                                  | <p>3. <u>CAMOUFLAGE</u></p> <p>Nets should be carried and used.</p>                                                    |
| <p>2. <u>WORKSHOP</u></p> <p>Other phases of field training should be covered in addition to recovery. eg., additional vehicles brought up and wksp actually employed in all its phases.</p> | <p>4. <u>DEFENCE</u></p> <p>Defence of wksp practised with possibly 205 Wksp as enemy. Rifles etc, to be carried.</p>  |
|                                                                                                                                                                                              | <p>5. <u>WIRELESS</u></p> <p>Wksp should be wireless equipped in order to receive training under field conditions.</p> |

# CO<sub>2</sub> COOLING

by Paul E. Brundberg

[A significant advance in machining practice has been introduced by CO-2 Development Co., of Detroit, Mich. Mr Paul E. Brundberg, the inventor of a new process for cooling cutting tools with carbon dioxide, has written the following notes especially for the RCME Quarterly -- Eds]

The salient point of the process is provision for a stable environment in the area where tool contacts work so that the function of machining occurs at room temperature. Accordingly, critical tolerances are held while original metallurgical properties are faithfully maintained. This is especially important in processing austenitic steels, titanium alloys, magnesium and those alloys subject to chemical and physical change during working operations.

The process differs in concept from the ordinary function of a coolant. It is carried on by supplying a measured flow of pure, dry liquid carbon dioxide to the immediate area where tool contacts work; solid carbon dioxide ensues by expansion which is useful in interfering with heat rays (ie to convert the solid carbon dioxide to gas by sublimation) in the manner described as a cold catalyst. -- Thus, work goes on at room temperature and the expansion characteristics of the metal are under control. The latter has been proven by consistently machining parts (on ordinary production machinery) at .0004" tolerances. Secondly, where metals are processed at room temperature, the tool cuts without heat mortality and "burnishing" and, most critical of all, the chemical and grain properties of the metal are not changed.

An incident of regular production is the processing of post heat treated steel in the hardness range up to 50-52 Rockwell C. -- Such work is going on in hobbing operations with regular high speed steel and molybdenum hobs. Where carbides are conveniently available for use the field of post heat treated steel is extended to special steels having an ultimate tensile strength of 234,000 lbs and yield point of 185,000. The latter group of steels are rough cut at speeds of 250 s/f/m/ and finished at 400 s/f/m/ with microinch finish below 25.

Of some interest to ordnance production is the free machining of Hadfield's 13% manganese

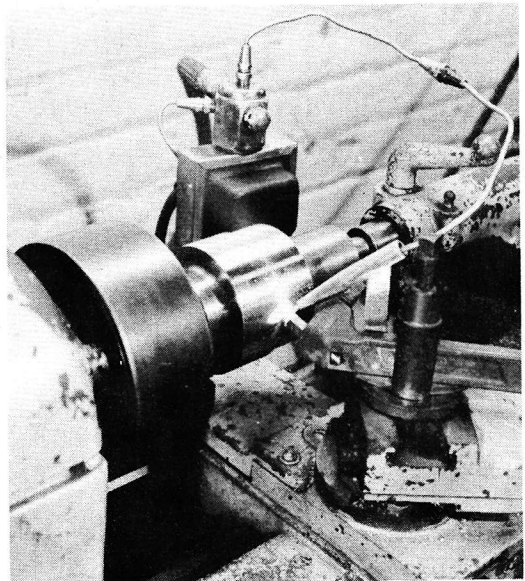
steel. This operation is accomplished without work hardening and without transforming the surface to a magnetic condition.

The process is being applied almost exclusively to military equipment. For instance the familiar "christmas tree" in the wheel section of a jet turbine, consisting of high carbon titanium alloy, is being broached with a non-carbide tool to the critical tolerances required.

Considerable work has been done in the grinding of carbide tools with wheels other than diamond since the latter is in short supply. The important result is the elimination of crazing and forming the tool without heat interference.

The process is being employed in the USA in the manufacture of jet engines, tanks, landing gear, guided missile, shells, rockets and many other branches of the defense program, with fittings for mills, end mills, broaches, hobs, lathes, shapers, tappers, thread mills, and special machinery. Its use in Canada is under active consideration.

The CO-2 process is especially timely for the program that includes inconel, multimet, Hastelloy's, chrome-nickel, chrome-moly, and the many "difficult" metals and alloys being specified for military purposes.



The rapid removal of cylinder head studs has long been a problem in the engine rebuild section at 214 Base Workshop, Vancouver. Difficulty has been encountered in obtaining a suitable commercial pattern drive on an eccentric to the stud making their use with impact tools impracticable.

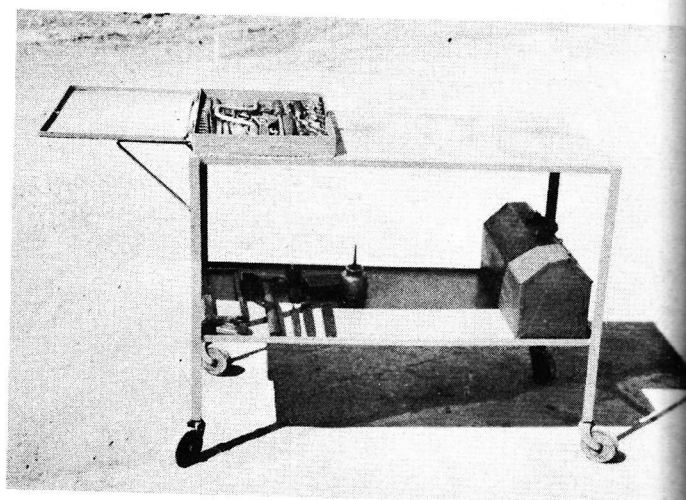
Sgt W.W. Laird has devised a remover of the eccentric wheel type with the drive over the center of the stud. Details of the remover are shown in the attached drawing and photographs. The top of the studs butts into the stud remover centering the gripping wheel just below the threads. As the drive is directly above the stud the gripping wheel does not have to withstand the impacting action of the tool. To release the stud from the remover one merely has to rest it on the block and reverse the action of the impact tool.

The attachment was manufactured from axle steel, the knurled gripping wheel being the only part hardened. It is recommended that the 8U Model Impactool be used with this attachment.



Sgt W W Laird operating the Impactool with the attachment and (inset) the attachment.

# SUGGES



Attached is a photograph of a mobile tool bench used in 216 Workshop by the engineer equipment mechanic. The dimensions of this in inches are: height 30, length 40 and width 20.

No. 216 Workshop does not have a security compound nor can it accommodate engineer equipment or large vehicles within its workshop. It is therefore necessary to effect repairs to those equipments on the small portion of sanded standing on the south side of the workshop.

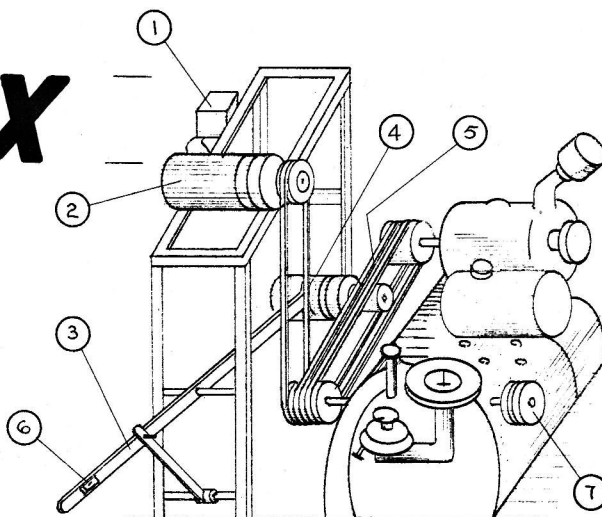
With the mobile tool bench the mechanic draws the extra tools required for the job from the crib, loads the bench and tootles off out to the job. The bottom tray is low enough that he can set small parts or tools on it when working under the vehicle. In this manner parts and tools are kept out of the sand and are readily transported back into the shop whenever necessary.

A fault found to date is that the wheels should be larger for this type of compound or for use on earth. A further modification to be added is a small basket on one end. This will be for throwing waste such as old rags, gaskets, etc. This will help keep the area clean.



# TION BOX

- (1) Voltage Regulator
- (2) Generator
- (3) Starting Lever
- (4) Starter
- (5) Compressor Belts
- (6) Solenoid Switch
- (7) Rope Starting Wheel

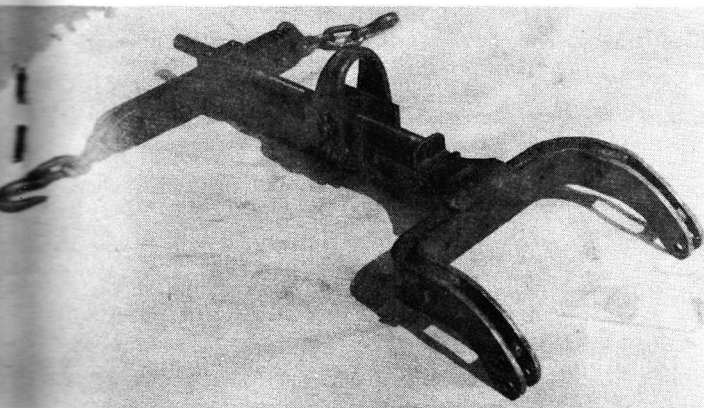


The lifter shown in the attached photograph was devised by the personnel of the tank shop of 215 Workshop RCME, Calgary.

Prior to the fabrication of this lifter the engines had been removed from M4A2 tanks by means of chains and two blocks and tackle. This method was slow, inefficient and required too much man-power. So, after due consideration and research, the lifter shown was manufactured.

Its operation is simple; merely attach the solid clevis to the rear engine lifting eyes with 5/8 inch bolts and the hooks to the front eyes on the twin diesel, and with one block and tackle suspended from an 'A' frame commence lifting. The engine can be suspended at any desired angle by rotating the threaded shaft which in turn moves the stirrup thereby adjusting the point of balance.

With this device two men can remove or replace an M4A2 power plant at a considerable saving of time over the old method.



This self starter for the Wisconsin engine used on the mobile greasing trailer was designed and assembled by personnel of 218 Workshop, Vernon.

## Principles of Operation

To start Wisconsin engine, press solenoid switch (6) which is located on the starting lever (3). To engage starting motor, push lever down which contacts belts (5), thereby turning the engine over.

## MORE SUGGESTIONS ARE NEEDED

We're getting to the end of our stock of articles for this department. Those already received will be published in due course but we need more.

If you would like to see this page continued, please forward your contribution.

## PLEASE NOTE

The RCME Quarterly may not be quoted as authority for any modification to equipment. Such authority must be obtained in the usual manner and through the proper channels.

# Book Reviews

THE RED ARMY TODAY by Colonel Louis B. Ely. Reviewed for the RCEME Quarterly by Major E. W. Laver psc, RCEME. Published by The Military Service Pub. Co, Harrisburg, Pa. 256 pp, \$3.50

In "The Red Army Today" by Colonel Louis B. Ely of the US Army, we look with the eye of an intelligence officer through a peephole in the Iron Curtain.

This is a timely presentation of the present organization and tactics of Russian forces. Material of this sort is particularly valuable because our weapons development and operational studies are in certain respects being conducted in a partial vacuum.

The author relies mostly on interviews with Germans who fought the Russians, and Russians who have fled the Communist utopia, for his information. From these he has created composite characters. Their accounts have been consolidated, condensed and arranged in logical order. Details are included in separate chapters covering the infantry, armour, artillery, horse cavalry, rear services and engineers, as well as how the Air Force and partisans operate in support of the fighting machine.

The methods by which the Red Army instills iron discipline and maintains morale with political propaganda are of interest. Oddly enough for a classless society, the caste system is strong within the Red Army. Great emphasis is placed upon rank and the paying of compliments. 'Political officers' watch the officer corps and the MVD checks both.

In an excellent chapter on "The People of the Red Army" the influence of political indoctrination on the military value of Russian men and women is stressed. A basically tough, patriotic and obedient race has been strengthened by political organization which produced increased educational facilities and industrial skills. The weaknesses of the system are not overlooked. Lack of initiative or a willingness to take responsibility are the results of a system where all action is dictated by higher authority and deviation is relentlessly punished.

The author estimates that the Soviet Army is far more efficient than it was at the end of



Parade of Moscow garrison on the Red Square, 1st May 1946. (Tass Photos)

World War II. This result has been attained by intensive training, particularly of junior officers. There is a lesson to be learned from this.

The Russian fighting machine operates with simpler equipment and administrative procedure's than our own. Red Army men say that they come to the battlefield to fight, not to eat, ride, talk, sit or carry messages. We can spend a good deal of time thinking about that statement and some startling reductions in overhead should result.

Highlights of the book are vivid and imaginative descriptions of two mythical military operations. In the first, Red Task Force Rhine expends more than a hundred divisions fighting its way west of the Rhine. In the second, Red Task Force Middle East drives through Iran and the Levant and westward across North Africa before being halted at Dakar. The major influences within the Red Army are clearly shown in both accounts.

Because Colonel Ely had to lean heavily on Soviet sources for information, a good deal of his material is biased. This results in a number of technical inaccuracies in this book. An example is the claim that T-34s knocked out German tanks at ranges of two miles. This is a pretty tall story when the 1940 fire control equipment and 76 mm piece of 2200 foot seconds muzzle velocity of the T-34 of that time are considered.

Nevertheless, Colonel Ely's book is a long step forward. It is a well organized study of the Soviet Army in readable form for the professional soldier who wishes a better picture of the war potential of the Soviets.



Upper picture: Parade of the Minsk garrison 1st of May 46 celebrations.

Lower picture: Leningrad garrison on parade on the Palace Square 1st May 1946.

The banner above the pictures of Lenin and Stalin reads (freely translated): In memory of Lenin, and under the leadership of Stalin, forward for the glory of the Soviet Homeland and complete victory of Communism in our territories.

**FEELINGS TOWARDS TOUGH SERGEANTS**  
**TOUGH ON BUFFALO:** There are a lot of buffalo living in Wainwright National Park and all of them wish Sam Purshell had never been in the army. The fact that he was makes life too uncertain for them.

Sam Purshell has been described as the world's greatest buffalo hunter and, during the 15 years he has been employed by the govern-

ment to kill off surplus animals, has shot about 18,000. When asked to what he owed his great enthusiasm for the sport, Purshell said, "It has always been my belief that deceased sergeants and sergeant-majors of the Canadian Army return to earth in the form of bison to roam the plains of Wainwright. I was once a private."

"Nuff said.

# ARMY WEEKEN

## Active and Reserve Force RCEME

by WO 1 V. J. Emek RCEME

The 7th Technical Regiment RCEME had one 'KL' Lorry and one 'M' Lorry in the static display on Memorial Boulevard. The 'M' Lorry was in operation all day under the supervision of Sgts Johnson and Briercliffe.

Our convoy, consisting of five vehicles and ten men, was one of a number which operated throughout the city on Saturday afternoon.

On Sunday, a Garrison Church Parade was held from the corner of Portage and Main, via Memorial Boulevard to the Legislative Buildings where the service was held. There were approximately 25 all ranks of the unit in the parade under the command of Major G. W. O'Neil, acting Officer Commanding.

### RCEME QUICK ASSEMBLY JEEP TEAM

by Lieut K. S. Parton RCEME

One of the highlights of the 'Blue Diamond Heaven Revue', shown to 4000 service personnel and friends at the Winnipeg Auditorium May 3rd, was a demonstration by the RCEME Quick Assembly Jeep Team, in which a specially prepared car 5 cwt was torn down and reassembled in short order.

Appearing before His Excellency The Lieutenant Governor of Manitoba, as a part of the entertainment revue, a crew of five ORs from 213 Workshop RCEME, Winnipeg, drove the jeep onto the stage, and to the amazement of the large crowd, reduced it to its minor assemblies, wheels, axles, frame, body, engine and transmission, steering assembly, etc., in just over five minutes. On a word of command, the team began re-assembly. Unfortunately, an injury occurred when Cfn J. D. Jarman had his thumb jammed in the rear axle assembly, and suffered the loss of a piece of the end, almost

down to the bottom of the thumbnail. Rather than interrupt the performance, however, he quietly absented himself from the stage in search of first aid. Despite the loss of Cfn Jarman, the team still completed re-assembly in nine minutes, drawing a round of applause from the crowd, most of whom were unaware that the injury had taken place.

Following the performance, Cfn Jarman was hospitalized and, at writing, it seems that the injury will not prove a severe permanent handicap. For his coolness, and for his action which permitted the completion of the demonstration uninterrupted, Brigadier R. E. A. Morton, GOC Prairie Command, directed that an item of commendation be written into Jarman's records. Winnipeg's two newspapers gave great attention to the performance, and included lengthy write-ups and photographs of Cfn Jarman.

On Saturday, May 5th, three demonstrations were staged during the 'Army Day' exhibitions, on Memorial Boulevard. The team, Cpl F. Sutton, Cfn J. D. Hayes, A. R. Flegg, C. J. Jack and G. K. Lane (to replace the injured Jarman) appeared before large crowds, conducting assemblies in 6, 5-1/2 and 5-3/4 minutes respectively. A great deal of interest was displayed by the crowds, which gathered in good numbers each time a demonstration was announced. This unique display of trade skill and speed proved highly successful and has brought much credit to the Corps.

The writer acted as our announcer. Lieut Pete North made his radio debut during the afternoon radio programme as he described the Army Day arrangements in answer to questions put to him by the station announcer.

Plans are underway now to paint each of the assemblies of the 'trick jeep' a different one of the Corps' colours. The crew's white cover-



# D IN WINNIPEG

## E Units Play a Leading Part

alls will have RCEME shoulder flashes and lettering to distinguish its members.

### SEARCHLIGHT DISPLAY

by Lieut S. A. Sainsbury RCEME

**O**ne of the main attractions of Army Week in Winnipeg was the searchlight display, organized and operated as usual by RCEME. For the two days of the Army exhibit, on the 5th and 6th of May, the searchlights were a beacon to the public as well as being one of the main attractions.

Personnel responsible for the success of the display included the officer in charge, Major D. C. Smiley; his aide, Lt L. A. Sainsbury; the RCEME maintenance team; and the searchlight operators. The team was comprised of S/Sgt Gray (instrument mechanic), Sgt Low (electrical mechanic), and Mr. W. Brown (vehicle mechanic). The searchlight operators consisted of six 'volunteers' from HQ Prairie Command who were trained for their duties by S/Sgt Gray.

The equipment used for the display included four searchlights (two concentrated, two dispersed), four generators, and six vehicles. The first step in the display from a RCEME point of view was preparing the equipment for use. This overhaul was carried out at 213 Workshop RCEME where considerable time was spent in bringing the searchlights, generators, and vehicles up to A-1 condition.

For the opening ceremonies the searchlights were situated on either side and in front of the Legislative Building in the heart of downtown Winnipeg. Following this the searchlights, in conjunction with planes from the RCAF Station in Winnipeg, provided the spectators with an entertaining display of plane spotting.

For the second day of the ceremonies the two dispersed beam searchlights only were used. As well as being on display to the public, where they attracted wide attention, they were called upon at night to illuminate the display area by utilizing the principle of 'artificial moonlight'.

The display proved to be an outstanding success with no hitches or trouble to disrupt the proceedings. Credit for this is due to the skillful handling and care of the equipment by the RCEME maintenance team, as well as to the energy and interest of the searchlight operators.

### RECOVERY ON ARMY DAY

by Cpl S. S. Sales RCEME

**R**CEME again contributed their combined efforts to make Army Day a successful one in Winnipeg. Along with the preparation of many displays of equipment and vehicles, a recovery crew consisting of a Diamond T Breakdown and equipment was laid on to assist in any vehicular trouble in the area south of Fort Osborne Barracks. This area was designated as the parking area for the civilian vehicles and it appeared to be made to order for this purpose.

At 1400 hrs the recovery crew, with myself as driver and Cfn Barr of 213 Workshop RCEME,

assisting, reported to Lieut Wilkinson, Cdn Pro Corps, for their instructions. Their first job was to reconnoitre the area for any soft spots where cars might bog down. After one turn around the field a large truck was spotted on the Fort Whyte Road attempting to turn around. Immediately it became mired down badly when it backed into the ditch. In a few short moments RCME had a winch cable hooked on and the vehicle was again on the road. As the crew were re-winding their winch a call from the other end of the field sent them on another job. By this time dozens of cars were arriving at the parking area. Upon crossing a small wooden bridge off the Fort Whyte Road they were on the grass. After several dozen cars had driven over the bridge the ground had started to give way and cars were sinking one after the other. After pulling several from the edge of the bridge it was found there were soft spots all over the area. At one time there were seven cars stuck simultaneously and the recovery crew were working fast and furiously to keep the traffic moving.

This went on for the whole afternoon until the field looked like a test area for Sherman tanks. The breakdown was now plowing a two-foot deep rut wherever it was driven and, consequently, many cars had to be pulled from these holes. One small English car went down so far that the driver couldn't open his door to summon help. However, towards 1630 hrs most of the cars had been towed out of the holes and were lined up in

orderly fashion.

When the show was completed the place was turned upside down when every driver tried to be the first one out. This resulted in what was probably the worst traffic jam in Winnipeg's history. Cars and trucks became mired all over the area. When they were moving they got through successfully, but if one vehicle stopped, stopping others behind him, they all sank 'out of sight'. Some drivers of shiny new cars had sickly looks on their faces when our big chains were hooked on their shiny bumpers, but not a car was damaged throughout the whole operation.

By this time the military police were getting a little hot under the collar at some of the drivers and pedestrians who would not keep moving. Some were even trying to push vehicles with their jeeps as the breakdown was still extremely busy.

In another hour's time every car had left the area and the crew took a break which they had well earned after pulling 63 cars and 9 trucks out of trouble. They breathed a sigh of relief upon learning that the area was not to be used again that night as a parking area, as previously planned.

Summing up the operation, RCME put on an extremely good show and impressed the public with the confident way they went about the work for which they are trained. This is one point in having an Army Week -- or Day.

## The "Kiddo Kids"

Front row: D Sauve, M. Seabrook (captain), E. Watt, B. Watt (bat boy), A. MacDonald, B. McElroy, D. MacDonald;  
back row: C. Lewis (manager), D. Richards, F. Rush, E. James, J. McFarland, R. Smith, M. Lewis, J. LeClair (asst coach) D. J. Seabrook. Absent from picture. (Photo by WOII V.H. Houlton).



The RCME Ladies Softball team, 'THE KIDDO KIDS' were successful in winning the championship in Camp Petawawa. RCR, RCD, Services and RCME, completed a twelve game schedule, with RCR not losing a game and defeating RCME twice. However, in the playoff, RCME defeated RCR in the first two out of three, fast, well attended games the scores being -- 23-18 and 20-19. Excitement was at fever pitch in the second game when RCR tied the score in the top of the 9th inning. RCME got two out then started to make errors, which added to the excitement on both sides, but, RCR were retired without further runs and RCME came to bat. With one out, McFarland got a hit and advanced to third on a grounder by Watt. Flo Rush, the winning pitcher, hit a grounder and brought in the winning run.

The Ladies are to be congratulated and all ranks of 23 Comp Bde Gp Wksp RCME are proud of their excellent record set this past season in Camp Petawawa. They have won all ladies competitive sports -- bowling, volleyball and softball. May they have as good a record this coming season.

# What Do You Know

## About RCEME Training?

1. What is the Training Year?
  - (a) January to December inclusive
  - (b) September to August inclusive
  - (c) April to March inclusive
2. Who issues the course program for the Training year?
  - (a) Army Headquarters
  - (b) Directorate of Electrical and Mechanical Engineering
  - (c) The RCEME School
3. What is the publication for the course program called?
  - (a) Annual Training Directive
  - (b) Schedule of Canadian Army Courses
  - (c) Course Manual
4. What course locations does it include?
  - (a) Canadian Joint Air Training Centre and Corp Schools
  - (b) Corps Schools and courses in other countries
  - (c) Corps Schools and Canadian Officers' Training Corps.
5. The General Instructions at the commencement of the Manual apply to:
  - (a) Active Force candidates only
  - (b) Active and Reserve Force personnel
6. For each Corps School the Manual contains:
  - (a) Historical background of School
  - (b) Joining instructions
  - (c) Organization of the School
7. A course shown in the RCEME course index marked with an asterisk (\*) is a course which
  - (a) Is subject to cancellation without notice
  - (b) Only occurs once in any fiscal year
  - (c) Candidates are selected by AHQ because the course affects career planning
8. The detail given on each course does not include
  - (a) Object of the course
  - (b) Prerequisites
  - (c) Scope of the Course
  - (d) Duration
  - (e) Planned frequency of Course
  - (f) Capacity

9. Of the types of RCEME Courses, one of these is definitely the object of none of them
  - (a) To qualify personnel
  - (b) To upgrade personnel
  - (c) To confuse personnel
  - (d) To convert personnel
10. How can I get ahead in RCEME?
  - (a) Specialize in the job you like
  - (b) Work to obtain course prerequisites
  - (c) Avoid course selection by every means.

## Armourer at Bisley

by Sgt K. J. Gourlay RCEME

Having completed a tour of duty as armourer for the 1951 Canadian Bisley Team, the following information may be of some benefit to future Bisley armourers.

The first and foremost point is preparation; obtain proper tools plus a good supply of all spare parts for the No. 4 rifle. At least one fore-end per man should be taken along, preferably those of walnut wood. It can be safely said that a great deal of time will be taken up in fore-end fitting and trigger pulls. For the service matches, a supply of Mk. 1 backsights should be included in spare parts. These will replace the standard Mk. 4.

Numerous types of rifles are encountered at Bisley. Not only did we find the conventional bedded army issue No. 4 rifle, but also twenty of the same rifles centre-bedded by A. Fulton at Bisley. This latter type proved highly satisfactory to the majority of the team, although that particular type of bedding, legal in England, is still at present unauthorized for competition in Canada. The rifle No. 3 Mk. 1 P 14 was also issued to each shooter and these were preferred for the shorter ranges. A good number of the

SMLE rifle, No. 1 Mk. 3 were used with great success at the long ranges. Some of these rifles, privately owned, were fitted with the heavy barrel in England at the shooter's expense and results were gratifying. This year a few team members competed in the small bore matches, so a few repairs or adjustments can be expected on rifles of this calibre.

With each shooter having about four rifles at his disposal, the armourer's day can be a long one. Fore-end fitting, trigger pulls, sight changes and replacing barrels and bodies are just a few important duties of the Bisley armourer. It is a wonderful experience, and with it is the knowledge gained not only from an armourer's point of view, but also from the shooter's angle.

At all times you are considered as one of the team and the co-operation received is excellent. Of course, the trip to Bisley has its lighter side also, a pleasant sea voyage combined with the generous hospitality extended by the various English rifle clubs. There is the traditional church parade to one of the oldest churches in England where wreaths are laid on graves of two former team members who passed away while attending the Bisley shoot. And there is the opportunity to visit Brookwood Cemetery, the resting place of many Canadian servicemen who gave their lives in the last war.

Perhaps in the near future another armourer may experience the good fortune that I have had in being a member of the Canadian Team that not only won the Imperial Tobacco trophy and the Kolapore, but brought back to Canada what is the ambition of every marksman to win, the famed 'King's Prize'.

CORRECT ANSWERS TO WHAT DO YOU KNOW ABOUT RCEME TRAINING

(b)10 (c)9 (c)8 (c)7 (b)6 (b)5 (a)4 (c)3 (a)2 (b)1



# PEDIGREED LUBRICANTS

## the refinery process

By LIEUT W. J. MILDON, RCME

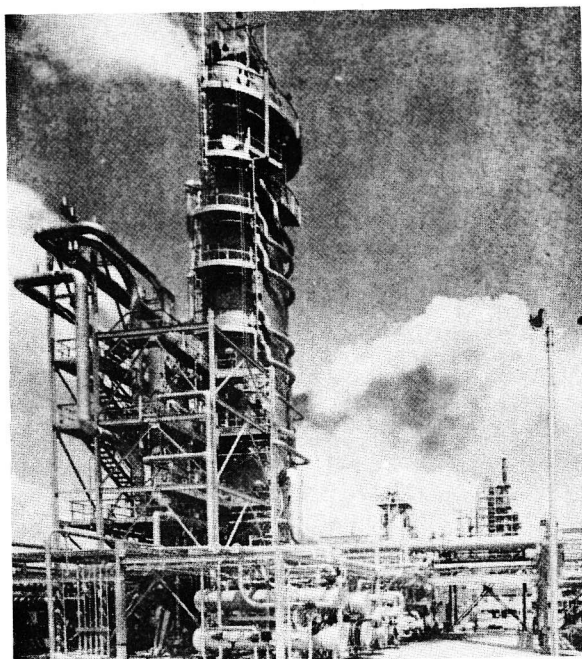
As pointed out in the previous article, the composition of the crude oil, as well as the end products desired, will dictate the method in which the oil is to be refined. In the manufacture of lubricating oils, two chief courses are followed, depending on whether the base stock is paraffinic in nature, as represented by Pennsylvania oils, or naphthenic as represented by Coastal or Western oils, and certain Mid-Continent oils.

Briefly, after the gasoline and fuel portions have been removed by the primary distillation, the paraffinic-reduced crudes are heated in a tube-still to approximately 600°F and passed into a secondary fractionating tower which is held under vacuum. Vacuum distillation is required to prevent cracking. Steam is also injected into the base of the tower to assist in the separation and distillation. At the top of the tower, gas oil is removed and refluxed. From the upper part of the tower are removed one or more wax distillates, which after treatment become 'neutrals'. From the lower part of the tower are removed the residual or steam refined stock which after treatment become 'bright stocks'. The 'neutrals' and 'bright stocks' are then blended in various proportions to form all the SAE viscosity grades of motor oils and industrial lubricants.

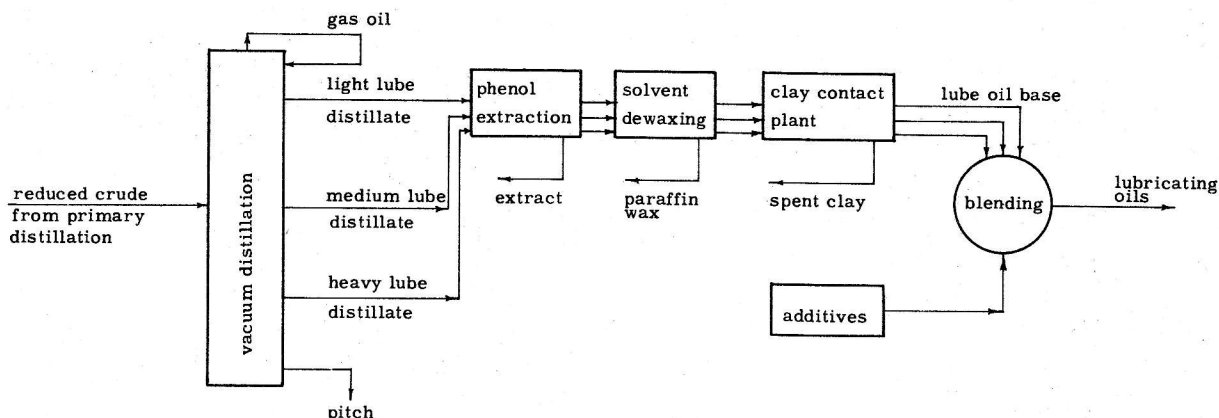
The naphthenic-reduced crudes, however, after passing into the vacuum distillation tower, are separated into several fractions which are gas oil, light lube oil distillate, intermediate or medium lube oil distillate, heavy lube oil distillate, and black bottoms or pitch. The lube oil distillates after treatment then become motor oils and industrial lubricants. The medium and heavy lube oil distillates have viscosities in the SAE 10-20 and SAE 40-60 ranges respectively. The other viscosity grades are made by blending these two in proper proportions. Such motor oils are referred to as '100% distilled oils' to differentiate from Pennsylvania oils which are blends of light and heavy ends.

After the vacuum distillation, the next step in the refining process is dewaxing. The older

method is called conventional dewaxing, in which the distillate oils are cooled by direct refrigeration to about 20°F below the pour point desired in the oil and the wax crystals formed are removed in filter presses. The crystalline wax obtained from wax distillates becomes the paraffin waxes of commerce. The steam refined stock is first diluted with about 2/3 naphtha before cooling to 30-50°F below the desired pour point, and amorphous wax is centrifuged out as a petrolatum. The naphtha is then distilled from the dewaxed oil. The newer method is called solvent dewaxing, in which the solvents employed, such as methyl ethyl ketone, benzol, and propane preferentially dissolve the hydrocarbons over the waxes. The mixture is then cooled and filtered in rotary continuous filters to remove the wax, after which the solvent is recovered by distillation for re-use. The advantages gained by this method primarily benefit the refinery, as the refrigeration requirements are consid-



Vacuum distillation unit



TYPICAL SOLVENT REFINING SEQUENCE — MID-CONTINENT TYPE CRUDES

erably reduced and a more efficient separation of wax takes place. In actual practice, the paraffinic oils are seldom dewaxed by either conventional or solvent methods, to pour points below 0°F. When lower pour points are desired, the oils are treated with pour-depressant additives.

After each distillation cut is dewaxed, the distillate is then treated with sulphuric acid, or else extracted with suitable solvents, the most common of which are furfural, phenol, and propane, to remove the asphaltic and aromatic constituents from the lubricating oil. In some refineries, the acid treatment or solvent extraction is carried out before the dewaxing process. Many Pennsylvania oils, however, are so low in asphaltic content that acid treatment is unnecessary, while Western oils require high dosages of acid. Mid-Continent oils lying in between the two extreme ranges of asphalt content require milder acid treatment. Medicinal and technical white oils are prepared by a drastic acid treatment. In all cases the asphaltic materials react with the acid and are removed as an acid sludge. Oils treated in this manner are usually termed 'conventionally refined'.

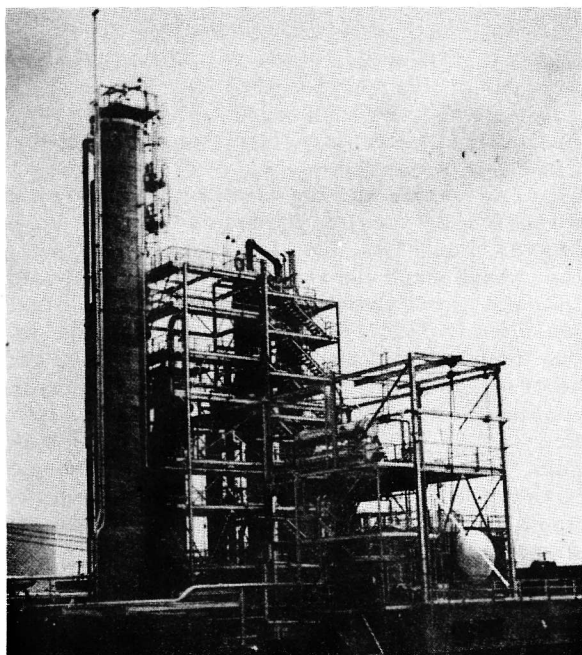
The solvent extraction method is largely replacing the older acid contact method. In this process, removal of asphaltic and aromatic compounds depends upon their solubility in some solvent which has a preferential solubility either for the desired lubricating oil or for the noxious asphalts. In some refineries, two solvents are used, each showing oppositely different solvent action on these components. The extracted oil is called 'raffinate' and the yield obtained is dependent on the degree of extraction, ie, contact time, solvent ratio, mixing efficiency, etc.

The major improvement effected by solvent extraction or acid treatment of lubricating oils

is a considerable increase in viscosity index. There is also a substantial improvement in carbon residue and color of raw stocks having high initial carbon contents. Experience has shown that solvent extraction is more efficient in removing the asphalts than the conventional refining method of acid treatment. Standard engine tests have proved that a solvent-extracted oil will give less varnishing and sludging than a conventionally refined oil. Another advantage of solvent extraction over conventional refining is that a higher viscosity index oil is obtained from the same base stock. Solvent extraction does not necessarily produce more stable or oxidation-resistant oils. Extraction does, however, change the type of oxidation which occurs and the type of oxidation end products which are formed. As a general rule it may be stated that conventionally refined oils tend primarily to form oil insoluble oxidation products which lead to hot engine varnish and sludge deposits, while solvent refined oils primarily form acidic oil-soluble products which are potentially corrosive to alloy bearings. Satisfactory oxidation resistance can only be imparted to oils by incorporating suitable inhibitor additives.

An indispensable operation in the refining of lubricating oils is clay filtration. Reduced crudes, oil distillates, and residual stream refined stocks are clay filtered, at one or more phases of their processing, to produce the light-colored refined products required for motor and industrial oils. The clays most commonly used are fuller's earth, bauxite, and Filtrol. These clays are forms of naturally occurring aluminum silicates and oxides, made active or activated for filtering and decolorizing purposes by roasting at high temperatures. They have a preferential absorbing action for the resinous, asphaltic, sulphur, and carbonaceous constituents oc-

curing in oils, and accounting largely for the dark color and high carbon residues of most reduced crudes. Two methods of clay filtration are practiced, the most common being by percol-



Furfural extraction unit

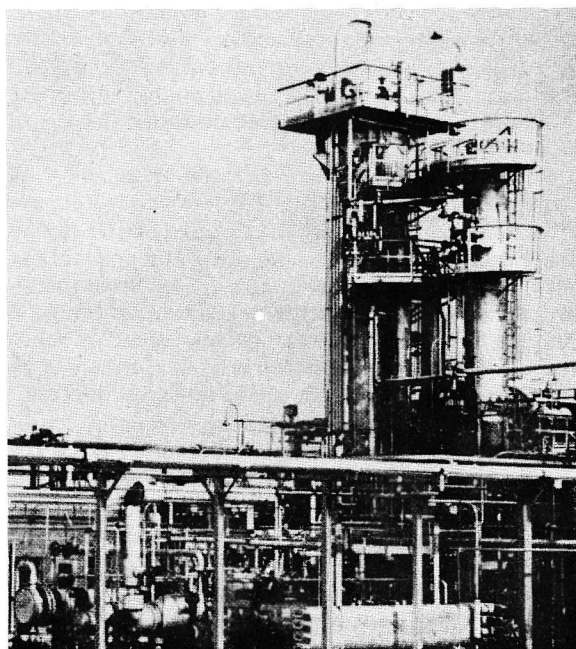
ation. In this method a large vertical tank is packed with granular clay, and the oil to be treated is allowed to percolate from the top of the tank, through the bed of clay, and the filtered oil is removed from the bottom. The clay is eventually spent and is regenerated for further use by burning it in a roasting furnace. The other method is contact filtration in which finely powdered clay is mixed with the oil, the oil-clay slurry heated in a tube-still to a temperature of 200--600°F, and then pumped to a tank where they are kept in contact for 5 to 15 minutes. On cooling, the mixture is pumped through a filter press to separate the decolorized oil and clay. The spent clay is discarded, as regeneration of powdered clay is difficult and expensive.

The final step in the manufacture of lubricating oils is blending and compounding. The finished lube oil distillates are mixed in various proportions to give the desired viscosity. To these blends are added a small percentage of 'additives'. The high compression ratios and power output of modern engines severely tax the lubricating ability and stability of motor oils. For these reasons, motor oil additives have been developed to produce the premium, heavy duty, and super duty oils of today. However, it must be emphasized, that the purpose of motor oil additives is to enhance or reinforce well refined,

quality mineral base oils, but they cannot substitute for base oil quality or for adequate refining. The different additives have been discussed in a previous article.

Before closing off the subject of lubricating oils, brief mention should be made of the increasing field of synthetic lubricants. The development of synthetic lubricants was speeded up by the Germans during the last war, and in the last two years of the war as much as 10% of all the oils used by Germany were of synthetic origin. The most common synthetic oils are (1) polybutenes and polyethylenes, which are very similar to petroleum oils in that they are long chain hydrocarbons; (2) silicones, which are long chain polymers differing from hydrocarbons in that the carbon atoms are replaced by silicon and oxygen alternately; and (3) 'Ucon' type lubricants, which are long chain polymers formed by the reaction of certain alcohols with alkylene oxides (polyglycols).

Such lubricants cannot compete with petroleum oils on this continent because of the difference in price. There are adequate supplies of petroleum and adequate refining capacity. However, synthetic lubricants are finding increasing use in specialty applications such as extremely low temperature lubrication of delicate instru-



Propane de-asphalting unit

ments, mould release agents, and certain hydraulic applications, where they perform better than petroleum oils. These oils are particularly noted for their very high viscosity indices and low pour points. Some of these synthetic oils are used as additives in petroleum oils: for example (Please turn to page 40)

# SPORT at PETAWAWA

One of the highlights of the August sports program of 23 Comp Bde Gp Wksp was the Unit Field Day, held early in the month.

It got off to rather a shaky start. At thirteen hours sharp, the contestants in the 100 yard dash were lined up in their places under the watchful eye of the starter, WO1 Macdonald. Last instructions were given, and he raised his pistol. Muscles tensed, necks craned to watch. "On your marks -- get set -- click!" The starting pistol refused to sound off. However, our NCOs took action immediately and in a few moments Mr Macdonald was walking arsenal with pistols of assorted sizes and calibres bulging from every pocket, and the day started with a bang as planned.

The unit program of track and field events was arranged in accordance with the list for Petawawa Camp Field Day, and all events are filled and hotly contested. As usual, wives, families and friends turned out in force to cheer their favourites. Passers-by stopped to watch and swelled the crowd, and every event was watched with keen interest.

Individual honours for the meet went to Capt Mike Ruscher with five firsts and a second. If he had not been put out of competition by an ankle injury in the pole vault, he would undoubtedly have gone on to greater glory. As it was, the Unit presented him with a substantial sum in cash prizes; the Medical Corps added a most attractive plaster cast for his ankle; and Mrs Ruscher topped it off some days later by presenting him with a baby boy.

A tremendous effort in the pole vault gave second place in total points to Lieut "Doc" House. Close behind were Cfn J. S. Wardle and Cfn C.

McCausland, tied for third, one point below "Doc".

As usual, the tug-of-war was a terrific struggle. By the time the teams from 'B' Vehicle Shop and Tank Shop had reached the finals, the stands were deserted as everyone crowded in to get close enough to cheer their favourites. Muscles strained, booted feet tore up the sod and dug deep holes in the sand. Several times, the referee, Sgt Richards, was on the point of raising his hand to signal a win when the losers rallied and the white rope markers moved back again. Finally the combination of brains and brawn in 'B' Vehicles earned the decision and the lion's share of the refreshments provided for the winners.

Special mention must go to the following:

Major Kitto, O/C Unit, for his support and interest;

WOII Brown (now Officer Cadet Brown) for his careful planning and attention to all the details which go to make a successful meet;

WOII Houlton for some clever photography;

Sgt Miron for managing his police duties so successfully without having to use that small tree he carries as a cane;

Sgt Davies for establishing a new speed record for setting up a most efficient PA system;

Cpl Greenwood for his discus throw. He just stood there, grinned and threw the discus over 85 feet without benefit of any preliminary wind-up. We are told that, with proper form, he can throw it completely out of sight, and his nonchalant toss on Field Day was planned so as to avoid hitting any children who might have been playing outside the sports field in the married patch;

Part of the crowd -- pick 'em out -- Cfn D DeBellefeuille and wife; Mrs Vic Houlton and family; Cfn Fraser; Cfn and Mrs Wardle; Cfn Bunton; Cfn Mills and numerous younger fry in carriages.

Photos by WOII V. H. Houlton RCME





Cfn Baxter for getting in there on the mile run with the younger boys and making them really work for their prize money;

Cfn Humphreys for having the backbone to get out and run miles on end to practice for Field Day;

The staff who prepared the track and pits, and had every last piece of equipment in the right place at the right time; and finally

Every competitor, for good sportsmanship in completing a field day without an argument or a beef.

The Committee -- Capt T A Goulding; S/Sgt J C McElroy; Major J S Kitto and Sgt H H Richards.



The discus throw -- Cpl R E Greenwood; also Sgt B S McLellan; Cfn G McCorkell; J Jamieson, Snuffy Portelance and L/Cpl C E Weisenberg.



The Announcers -- WOII L G James and Sgt J S Davis.

## 23 COMP BDE GP WKSP MEN'S SOFTBALL TEAM

CHAMPIONS CAMP PETAWAWA 1951

Front row: Capt M. Ruscher (playing coach) Cfn L. Norley, W. P. Bradley, F.H. Chartrand, A. K. Corrigan; back row: Cpl R. I. Rush, L/Cpl J. A. MacDonald, Cfn J. B. LeClair, L/Cpl R. L. Chandler, S/Sgt W. G. Simpson, Cfn V. R. Stuart. (Photo by WOII V. H. Houlton)





Cfn K W Kothlow winning the mile.



Cfn J S Wardle winning the 440. Also in the picture are Sgt P Hudson; Cfn A J Fraser (behind the winner) L D Humphreys and Kothlow.



Cfn W E Ferguson in the hop, step and jump. Also shown are S/Sgt McElroy; Cpl P J Fanner; Cfn A M Miller; Cfn Wardle, J Bunton, Maj Kitto and Cfn Collins.



Cfn Wardle winning the running high jump. Also shown are Cfn W P Collins; Ferguson; M C McCausland and H K Craig:

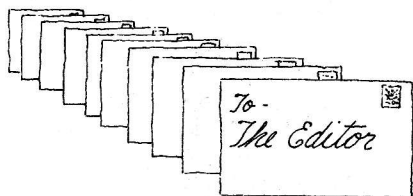


The tug-of-war: Cfn Wardle J Clarke; G Rendell; McCausland and Ferguson.



Lieut H W House in the pole vault, also Capt M Ruscher.

## Letters



## CORPS

## ASSOCIATION

Editor,  
The RCEME Quarterly.

Ottawa

Dear Sir:

Having been a member of the RCEME Corps since its formation in 1944 I feel that there is something lacking that should by now have been rectified. I refer to a corps motto.

I know of no other corps or regiment of the Cdn Army that lacks a suitable motto. It seems that even the widely used "Honi Soit Qui Mal y Pense" is better than none.

May I suggest that all interested members of the Corps be asked to forward suggestions to the RCEME Quarterly who may in turn draw them to the attention of the 'powers that be' for consideration.

R R Gibson Cpl DEME

Ottawa

Editor,  
The RCEME Quarterly.

Dear Sir:-

On page 7 of the July 51 edition of the quarterly, it was noticed that Cfn Ed Higham appears to be wearing a PPCLI hat badge.

If this man is Corps of RCEME, and it is assumed he is because of his rank, should it not follow that his badge be the appropriate one?

L G Perrier Sgt DEME

Our thanks to Sgt Perrier for noting this interesting point. His corps badge is the only correct badge for any RCEME Craftsman to wear. While the Pats have honored Cfn Higham by permitting him to wear their badge, there are no regulations authorizing this practice. --Eds

**O**n 1 Jun 51 the Annual Meeting of the Niagara Group was held in the Officers' Mess, Burlington St. Armoury Hamilton.

The following officers were elected for 1951-52.

|                  |                                                        |
|------------------|--------------------------------------------------------|
| Chairman         | - Major W. T. Thompson                                 |
| Vice-Chairman    | - Capt W. L. Bland                                     |
| Secretary        | - Capt J. M. Elliott -- also publicity representative. |
| Treasurer        | - Capt H. W. Mole                                      |
| Program Chairman | - Lt-Col H. B. McAdam                                  |

Following the elections Lt-Col King Mason discussed the progress being made in the setting up of the new RCEME unit in St. Catharines. He estimated that the new building would be ready by January 1952.

The British army film "Desert Victory", (of the North African Campaign) was shown.

**L**t-Col A. J. Robbins has a sad story to tell from Prairie Command. It appears that members of the RCEME Association have been doing nothing but leave Winnipeg, among them Lt-Col B. F. (Bar) Miller, formerly OC of the 7th Tech Regt, who was transferred by his company (Imperial Oil) to Edmonton; the Group Chairman, Capt Wm. Cann, who went to Toronto (Massey-Harris); and then a whole slew of younger fellows who went to various other parts of the country, some of them not even leaving a forwarding address.

The twenty-three stalwarts who originally made up the group have dwindled down to something next to zero, and Robbie says he just hasn't the heart to appoint anybody to the Publicity Committee of the Chapter.

Never mind, Robbie, sooner or later some of the best of the RCEME characters will realize what a grand spot Winnipeg is and will flock to the city, so that you will have no difficulty at all in forming a really live chapter!



# DCRA MEET,

## OTTAWA

**O**fficer Cadet Harold C Gunter, COTC, from the RCEME School won His Excellency The Governor General's Prize at the 1951 Dominion of Canada Rifle Association meeting held on the Connaught Rifle Ranges, Ottawa.

This is a 'first' for the Corps in competitive rifle shooting. Never before in the history of the DCRA meetings has this most sought after prize been won by a marksman from RCEME, or its predecessor, RCOC(E).

Because Cadet Gunter was only 93rd among the qualifying shots in the First Stage of the Governor General's there was no crowd behind him as he carefully shot his tying top score of 168 in the Final Stage. His dad was there, though, and it was a proud moment for Capt A G Gunter, Saint John NB, himself a Bisley shot in 1933 and adjutant of the 1948 team, when his son won the shoot-off between the four who finished the match with 168s.

However, you can't all win, and many other members of the Corps did very well and altogether brought much credit to RCEME. Cfn Hirsch followed Gunter in the Governor General's Final Stage in 35th place; Cpl Robertson 64th; Cfn Cosman 65th; Sgt Norman 70th; Sgt Woods 80th; Cpl Glover 89th; Capt Morgan 102nd; and Cfn Boisvert 130th.

In the Longue Pointe Military Rifle Association team which won the Gordon Highlanders' Match were four men from 202 Base Workshop; Sgt Norman, Sgt Woods, Cpl Cosman and Cpl Glover. Capt Morgan was a member of the NDHQ team which won the Barlow and the Coates and placed 4th in the Bankers'. Cfn Boisvert also shot with NDHQ teams and Cfn Kent HQ BC Area, who won the High Tyro silver medal by placing 3rd in the Lieutenant Governor's match at the BCRA in Victoria, shot with the HQ BC Area team.

Unfortunately it is impossible to show all the scores made or to do justice to all those taking part, but year by year the Corps demonstrates the fact that its personnel are soldiers before they're tradesmen. With Collins, Etter, O'Connor, Cooper, Jerney and others, too busy this year on more important matters, back in competitive shooting next year, RCEME should repeat the successes of past years.



Officer Cadet Gunter 'chaired' in the traditional style after winning the Gov Gen's Prize.

## Quebec Prov Meet

**S**gt T Woods, from 202 Base Workshop Montreal now at Wainwright Camp, won the Lieutenant Governor's Prize at the QPRA, Cpl E Cosman was second and Cpl Wm Glover was 17th.

These three RCEME tradesmen from the Base Workshop were on all Longue Pointe Military Rifle Association teams which took three firsts, four seconds and one third place. In fact these three names appear continually in the top money of most matches.

In the Grand Aggregate, besides Woods, Cosman and Glover who finished in that order, the following members of the Corps finished 'in the money': Cfn R D Dunham; L/Cpl L Gauthier; Sgt Mitchell; Cfn SS Walberg and Cfn J M Barrie.

(PEDIGREED LUBRICANTS

continued from page 35)

ample, paratone, a polybutene, is a viscosity index improver; Daw-Corning Fluid '200', a silicone, is a foam depressant; and paratac, another polybutene, is a tackiness agent.



# Shooting with 11 Coy

**R**CEME was well represented by 11 Coy Vancouver at the BCRA shoot at Heals Range, Vancouver Island, 21-25 Jun 51.

Of the twelve-man team chosen to represent Headquarters, BC Area, six were from 11 Company, RCEME. Unfortunately two were unable to participate due to illness. Those representing RCEME on the team were WOII R G Hare; L/Cpl J Murray; Cfn T D White; and Cfn M S Kent.

For the third consecutive year the team won the Lang Memorial Trophy. This trophy is competed for by a twelve man team from RCN, Army and RCAF, Active and Reserve Force.

The Wilkinson Shield open to teams composed of four previously named members of any unit of His Majesty's Forces who are actually serving on the day on which the competition is fired, also the RCMP, was won by the workshop team.

Cfn Kent won the Silver Medal, for being the high Tyro in the second stage of the Governors Match, and placed 8th in the Grand Aggregate, thus gaining a place on the team to represent BC in the DCRA Shoot at Ottawa.

Everyone within 11 Company, from the Officer Commanding down is right behind their rifle team. Unfortunately for 11 Company Cfn Kent has been posted to Fort Churchill



(l to r) L/Cpl J Murray; Cfn M S Kent; WOII R G Hare and Cfn T D White.

## RCEME IN THE 27 BRIGADE

RCEME units contributing to the organization of 27 Cdn Inf Bde are as follows:

- 194 Infantry Workshop, RCEME
- 196 Light Aid Detachment (type B)
- 197 Light Aid Detachment (type B)
- No. 1 Cdn Base Repair Section,

### RCEME

Although not a RCEME unit there are a number of RCEME personnel within the establishment of the armoured element in the Bde and they form a compact little group.

Major G. W. Thompson is the DADME of the brigade. Major G. L. Lodge is the OC of 194 Workshop and Capt D. H. Cumming and Capt P. A. Tuck are OCs 196 and 197 LADs respectively. Major W. A. Campbell has 1 Cdn Base Repair Section under his command.

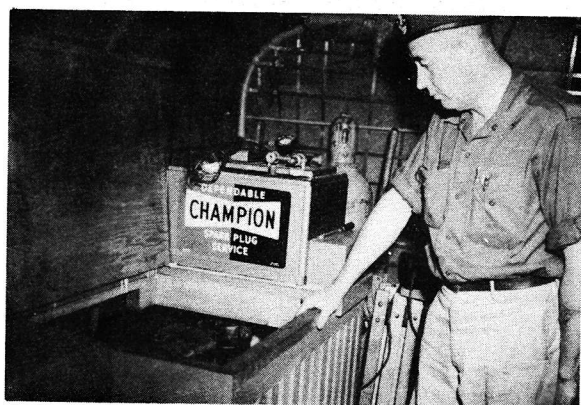
WOI H. Sloan is the Senior NCO with 194 Inf Wksp and WOI J. E. Brewster the Senior NCO with 1 Cdn Base Repair Section.

At the present time the aforementioned units are stationed at RCEME School Kingston, and are fighting the battle of "growing pains". Undoubtedly, many harrowing experiences have been encountered during the "battle". However, at this late date sufficient time is not available to go into the matter fully. If the newspaper clippings read correctly, we may expect these units to proceed to Europe shortly. Future issues of the RCEME Quarterly intend to carry detailed stories of RCEME experiences with the 27 Cdn Inf Bde -- if sufficient information is forthcoming from you know who!

# DND Vehicle 63-196

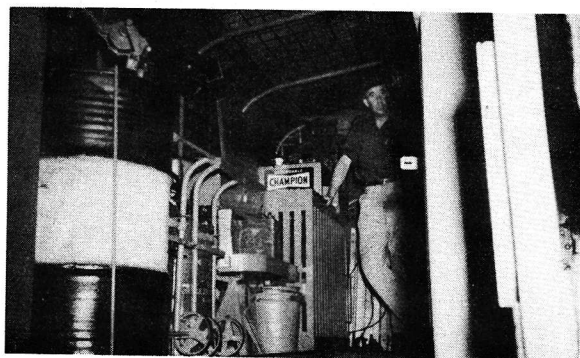


DND Vehicle 63-196



Above and below:

Left side of truck contains oil drums; grease drums on dollies; air compressor; spark plug servicer; oxy-acetylene tanks all secured in place.



To provide facilities for servicing vehicles of Reserve Units without either mechanics or workshop accommodation, 4 Coy RCEME, Montreal, has fitted up an unusual truck, DND 63-196. This was done under the direction of Major J R McLarnon, OC 4 Coy from plans made by Lieut W G Svab.

At first glance it looks like any other 3 ton Commercial Dodge. It has the usual appearance -- same length -- tarpaulin covered -- dual rear wheels, etc -- but closer examination will reveal that the box has been raised 1-1/4 inches. This, we find, allows for an ingenious lock-up opening to the back of the truck, for the 4-ton floor jack and 6 ft crowbar for testing spring shackles.

This Dodge has a good upright look about it; no weary sag to its rear end, in spite of the fact that it carries a most complete array of vehicle servicing equipment. You see, two extra leaves have been added to the main rear springs for safety. It'll stand a whole ton of extra weight and still be within the 1/2 ton overload limit.

According to S/Sgt T S Gardner, the NCO in charge, this truck can quickly service the vehicles of any unit within the Montreal area and, once it is plugged into 110 volt power, can do any first echelon job. One hundred feet of No. 14 cab tire cable and suitable outlets are provided so that all power tools can be operated in the open. The 'staff' takes along a scale of parts on Ordnance imprest account, such as plugs, points, replacement starters, generators, carburetors etc.

The truck carries 45 gallons of engine oil; 100 lbs each of GS and transmission grease to carry out complete lubrication of unit vehicles. As most of the work has to be done in lanes and driveways, it is equipped with compressed air, power, and the tools normally found in a unit's MT section. For instance it has a battery charger, because in many units theirs, if they have one, is not available when RCEME calls.

Many of the improvements found in DND 63-196 are the result of experience. In an earlier truck used in such work, equipment on the floor was always damp, so a 3 x 7/8 inch tongue-and-groove floor over waterproof paper was screwed down to the original floor, to make it absolutely waterproof.

Another idea was to have all fourteen locks altered so that one key would take the place of fourteen. No longer does the NCO waste his time getting the right key! Yet another innovation is

the outside drains for the air compressor and tank, to save space and avoid mess inside.

Everything within the truck is secured and yet portable when required. The grease equipment can be taken out on dollies; the welding torches are carefully packed in a box with a handle; and there is a lath basket for cleaning rags carried in a well in the workbench.

The superstructure is of welded pipe for rigidity and covered with strapping under the tarpaulin for security. There is a back door frame of angle iron with a stay to hold the tarp up as a shelter when the door is open. The whole thing could be very easily winterized, according to Major McLarnon, by lining it with ten-test, as it already has a double floor.

To man this workshop on wheels, there is a Reserve Force Servicing Section, and they will perform the work that will be known as 'team maintenance'. The men will travel in a specially adapted station wagon, as a combination day coach and office. Clothes hangers will be provided so that they may present a good appearance on arrival at the unit. The rear office section of the station wagon will have a desk and split sets of EMEIs and manuals. When the regular routine is established the servicing section will closely follow the vehicle inspection team and carry out the work called for on the 2208s, or assist the unit mechanics in doing it. This will greatly reduce the workload in the workshop by getting all first echelon work done in the units.

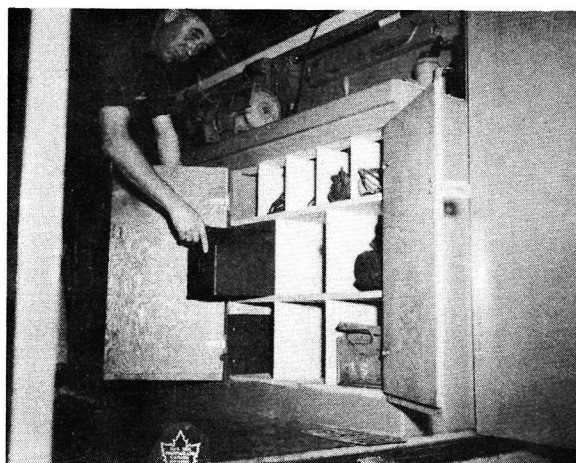
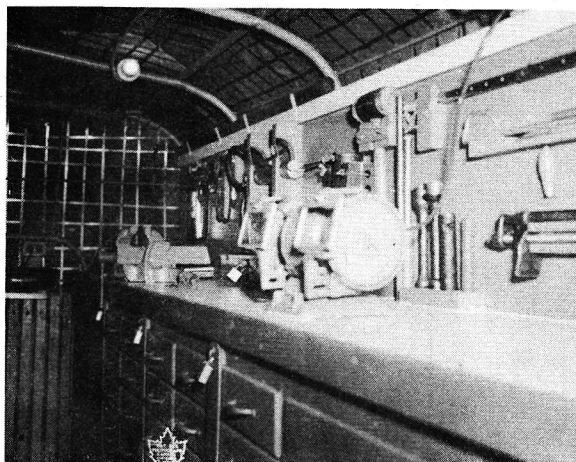
-RCEME Quarterly staff photos

Below left:

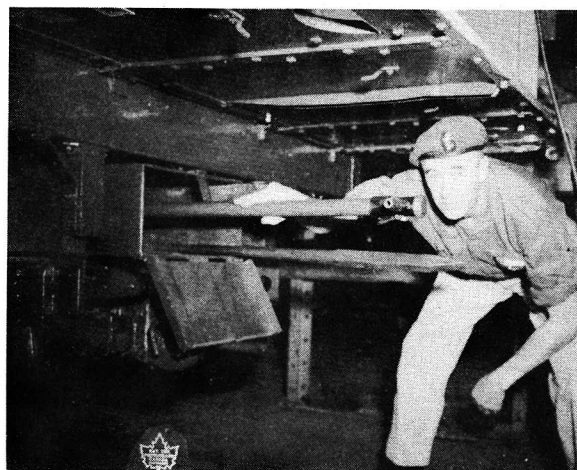
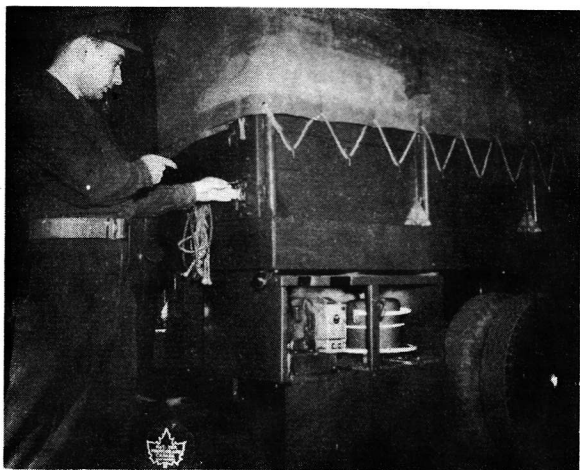
Lt W G Svab points to 110 V outlet for plugging in portable drill, extension light etc. Also shown is battery charger.

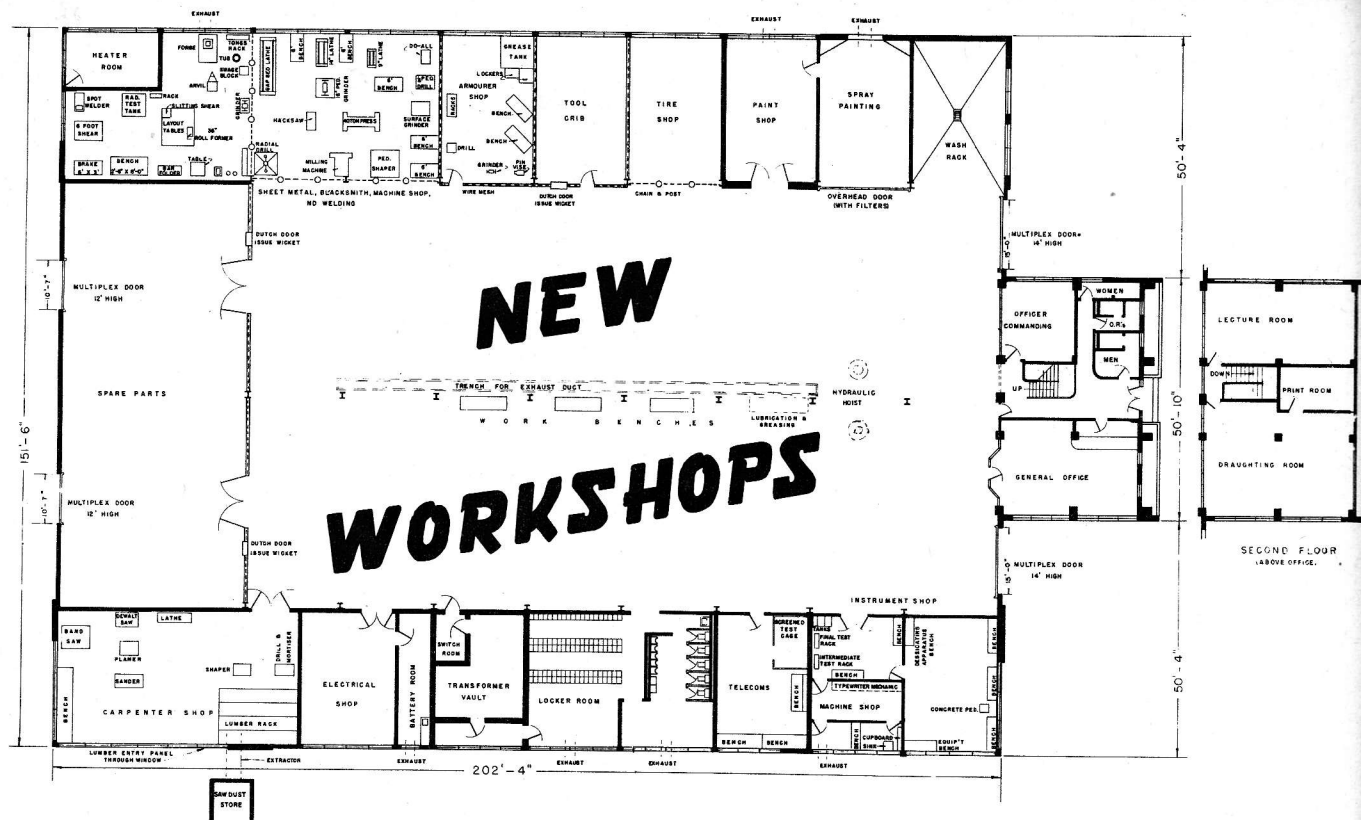
Below right:

Lock-up for 4 ton floor jack and crowbar. S/Sgt T S Gardner is holding the jack handle.



Right side of truck from the back: workbench showing (top photo) tool grinder; vise; fire extinguisher; voltmeter; vacuum and compression gauges; grease guns; wheel and tire equipment and steering alignment rod; (bottom photo) the fitted compartments for tool kits etc.





There were many who believed that they were destined to continue to work in converted drill halls and draughty warehouses until they went on pension. There is good news for them. New Workshops are to be built across the country.

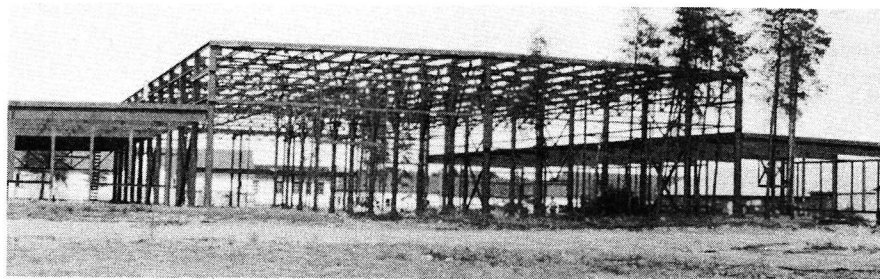
In our issues of July and October 1950, we ran a series of two articles entitled "The RCEME Workshop". The second of these articles described a standard layout for a 100-man RCEME Workshop. We pointed out that the plans had been drawn up by the Royal Canadian Engineers following a floor plan made by DME, and we stated that if any new RCEME Workshop construction was effected it was likely that this would be the design that would be followed.

It will be of considerable interest to a number of our readers to learn that this layout is now actually being used in the construction of RCEME Workshops at Petawawa, Long Branch, Edmonton, and Fort Nelson. In addition to the foregoing shops, on which work has already been

started, others are in the planning stage (including Ottawa and Montreal), to meet the commitments of Canada's growing army.

We said in our foreword to the series that everybody had his own ideas as to how a Workshop should be designed. All of us are interested in Workshop layout, even if not all of us are destined to command a Workshop.

At the conclusion of the first article we added that some of the suggestions made therein might be open to argument, and we invited criticism. We waited for a flood of replies. There were none. Now, a year and a half later, the Workshops are coming into being, and we conclude that they must indeed be ideal, since no one in the Corps had any complaint to make, nor any suggestions to better the design. It is a good many years ago that we were married, but our recollection is that some time during the ceremony an appeal is made to the congregation requesting one or all of them to speak now, or forever hold their peace. We say no more.



New workshop at Petawawa Military Camp under construction. (Photo by WOII V H Houlton RCEME)



# who's where

Brig J.W. Bishop, VAG, AHQ

## COLONELS

Boehm, C.R. DEME  
Franklin, R.L. DVD  
Mayhew, E.C. DAD

## LIEUT-COLONELS

Beddows, J.S. Sorel Ind Sorel PQ  
Bradbury, G.F. TSOI, DVD  
Campbell, R.A. GI DWD AHQ  
Coleman, E.W. CO 17 Coy London  
Cavaghan, G.G. TSOI, DVD  
Dunlop, J.R. CO The RCEME School Kingston  
Elmsley, C.M.R. ADEME Plans DEME  
Hagey, H.W. CO 202 Base Wksp Montreal  
Hamilton, W.G. ADEME Trg DEME  
Huddleston, A.N. Cdn Arsenal Ltd Ottawa  
Hunt, W.S. AAG D Org AHQ  
Jobson, R.F. Comd EME West Comd  
Jones, C.W. DDEME  
Kirby, C.G. ADEME Veh Sect DEME  
King, E.C. ADEME Wksp Sect DEME  
King, P.C. Staff RMC Kingston  
Mason, H.L.K. Comd EME Central Comd  
McKibbin, K.H. GSOI DMT AHQ  
Mendelsohn, A. CAS Washington USA  
Miller, A. Comd EME Quebec Comd  
Monk, A.O. DDEME Tech DEME  
Morgan, H.G.F. Comd EME Eastern Comd  
Ramsay, R.H. AAG D Adm AHQ  
Roncarelli, J.A. ADEME Scaling Sect DEME  
Sangster, A.G. VDE, AHQ  
Stethem, A.J.R. Comd EME Prairie Comd  
Stucken, S. Cdn Arsenal Ltd Ottawa  
Ward, K.R. ADEME Wksp Sect DEME

## MAJORS

Ambrose, E.R. OC PG Det VDE Ottawa  
Anderson, R.W. 17 Coy London  
Banham, H.C. Adm Officer RCEME School  
Beanlands, H.L. OC 6 Coy Halifax  
Bethel, V.W. DADEME Elect DEME  
Bourbonnais, L.A. 202 Base Wksp Montreal  
Brignell, E.M. OC 20 Coy Wainwright  
Bromage, T. OC 13 Coy Calgary  
Brown, H. IQS  
Bruce, G.W. Fort Knox Ky USA  
Campbell, D.D. Scaling Sect DEME  
Campbell, D.A. TSO2 CAS Washington USA  
Campbell, W.A. Vehicle Sect DEME  
Carscallen, C.N. DVD

Cram, J.N. DAAG HQ East Comd  
Dalrymple, W.M. OC 16 Coy Whitehorse  
Davis, R.L. OC 228 Wksp Hagersville  
Dolan, M.A. OC 5 Coy Quebec City  
Down, W.A. OC 205 Base Wksp Borden  
Fulford, R.K. 202 Base Wksp Montreal  
Garnett, J.J. OC 11 Coy Vancouver  
Goodfellow, H. CAORE (Korea)  
Hallam, R.E. OC 191 Cdn Inf Wksp 25 CIB  
Hodgson, R.H.C. SLO Detroit Arsenal Mich USA  
Kaye, F.R. Pers (RCEME) AHQ  
Kennedy, D.T. Exchange Officer UK  
Kirk, G.T. RSO NSTC Halifax  
Kitto, J.S. OC 23 Comp Bde Gp Wksp Petawawa  
Lane, R.C. OC 25 Cdn Spt Wksp 25 CIB  
Laver, E.W. DAAG CASC Kingston  
Lewis, A.H. DADEME 25 CIB  
Libbey, A.M. OC 7 Coy Coldbrook NB  
Lodge, G.L. OC 194 Coy 27 CIB  
MacLean, A.L. Staff RMC Kingston  
MacLean, J.H. VDE, AHQ  
McClelland, L.E. RCEME School  
McLarnon, J.R. OC 4 Coy Montreal  
McLaughlin, I.M. DADEME Arm DEME  
Moore, A.F. OC 12 Coy Regina  
Murray, K.L. RSO Queens Univ Kingston  
Owens, W.J. MC of S UK  
Platt, P.L.W. DEME AHQ  
Provan, C.G. RCEME School  
Read, J.H.F. OC 2 Coy Malton Ont  
Reid, M.A. P & T Sect DEME  
Robinson, H.M. RCEME School  
Screaton, L.B. 202 Base Wksp Montreal  
Sherren, J.P. HQ Prairie Comd  
Smiley, D.C. OC 1 Coy London  
Thompson, G.W. DADEME 27 CIB  
Whittingham, J.W. Wksp Sect DEME  
Wilson, J.A. Wksp Sect DEME

## CAPTAINS

Adams, J. CJATC Rivers Manitoba  
Allen, C.G. OIC 203 Wksp Quebec City  
Anderson, E.R.H. 2 Coy Malton  
Auckland, R.A. 25 Cdn Spt Wksp 25 CIB  
Barnes, E.A. 5 Coy Quebec City  
Beddard, W. 4 Coy Montreal  
Belcher, G.A. 17 Coy London  
Beneteau, B.A. 25 Cdn Spt Wksp 25 CIB  
Betts, C.H. MC of S UK  
Bishop, E.P. VDE, AHQ  
Bourne, J.H. 3 Coy Kingston  
Boughton, J.C. P & T Sect DEME Section  
Branston, W.J. 17 Coy Mech Stores Scaling  
Byington, T.H. OIC 207 Wksp Kingston  
Campbell, J.N.R. 5 Sect A & T Staff Quebec City  
Carlyle, D.G. RCEME School  
Cohen, H.L. CI RCEME School  
Cole, E.W. 191 Cdn Inf Wksp 25 CIB  
Collins, K.F. Armt Sect DEME  
Coombe, J.H. 2 Sect A & T Staff Toronto  
Cooper, F.E. GSOIII DWD AHQ

Coultish, F. Adm Officer RMC Kingston  
 Coupland, K. L. F. MC of S UK  
 Cox, B. B. 23 Comp Bde Gp Wksp Petawawa  
 Craft, G. C. TSOIII DAD AHQ  
 Croft, A. M. On Course RCEME School  
 Cuddihey, J. J. E. 2 Coy Malton  
 Cumming, D. H. OC 196 LAD 27 CIB  
 Currie, J. C. MC of S UK  
 Cuzner, J. E. RCEME School  
 Deibert, B. MC of S UK  
 Demone, F. L. 6 Coy Halifax  
 Dewhurst, J. B. MC of S UK  
 Ellis, W. E. Cdn Arsenals Ltd Long Branch  
 Erb, H. H. E. Radar Course UK  
 Esdaile, A. E. RCEME School  
 Evans, G. L. OC 10 Coy Winnipeg  
 Fendick, R. F. RCEME School  
 Girdler, S. A. 159 LAD Calgary  
 Glover, W. H. RCEME School (Scaling Section)  
 Goodings, B. H. 202 Base Wksp Tech Stores  
 Grainger, G. E. OC 210 Wksp Picton Ont  
 Grinham, A. D. L. RCEME School  
 Hamilton, C. J. 4 Coy Montreal  
 Hann, H. V. 194 Cdn Inf Wksp 27 CIB  
 Hare, E. J. Wksp Sect DEME  
 Harmer, A. G. 10 Coy Winnipeg  
 Harvey, E. J. O. D Org AHQ  
 Hawkins, W. H. OIC 200 Base Wksp Halifax  
 Heal, T. R. MC of S UK  
 Hendricks, E. F. 191 Cdn Inf Wksp 25 CIB  
 Hewson, J. M. 10 Coy Winnipeg  
 Holland, L. F. on course RCEME School  
 Hughes, A. W. 202 Base Wksp Montreal  
 Hott, E. C. MC of S UK  
 Jeffery, A. J. HQ RCEME West Comd  
 Jickling, W. S. On Retirement Leave  
 Johnson, F. G. 211 Base Wksp Regina  
 Jones, E. G. Adj RCEME School  
 Kenyon, V. D. MC of S UK  
 King, H. L. M. MC of S UK  
 Lane, W. H. HQ West Ont Area  
 Lawrence, C. G. OC 18 Coy Ft Churchill  
 Lightfoot, H. B. RCEME School  
 Logan, R. R. 205 Base Wksp Camp Borden  
 Loughridge, J. L. OIC 211 Wksp Regina  
 Love, L. H. No. 1 RDU  
 Lowe, T. 200 Base Wksp Halifax  
 Lower, E. A. OIC 217 Wksp Esquimalt  
 MacDonald, R. L. OIC 201 Wksp Coldbrook NB  
 MacDonell, A. L. D. OC 170 LAD Shilo  
 MacHale, D. H. RCEME School  
 Maitland, A. G. M. GSOIII DWD AHQ  
 Maybee, R. D. DQOP AHQ  
 McLaughlin, H. E. OC 193 LAD 25 CIB  
 McKinnon, J. A. 11 Coy Vancouver  
 McManus, H. 11 Coy Vancouver  
 Miggins, G. P. 215 Wksp Calgary  
 Morgan, M. M. RCEME School  
 Morris, R. A. MC of S UK  
 Otto, A. B. 205 Base Wksp Camp Borden  
 Palfrey, T. R. OIC 220 Wksp Ft Nelson

Pinder-Moss, J. N. MC of S UK  
 Protheroe H. F. Wksp Sect DEME  
 Racicot, C. G. 194 Cdn Inf Wksp 27 CIB  
 Rhodes, W. 202 Base Wksp Montreal  
 Rivers, R. C. OC 192 LAD 25 CIB  
 Roberts, A. N. P. Ord School Aberdeen Md  
 Roberts, A. T. RCEME School  
 Robinson, M. R. RCEME School  
 Ruscher, M. 23 Comp Bde Gp Wksp Petawawa  
 Scarlett, I. C. CADEE Valcartier, PQ  
 Sergie, F. J. DVD AHQ  
 Sloan, J. L. 194 Cdn Inf Wksp 27 CIB  
 Tait, S. G. Veh Sect DEME  
 Thomsen, A. R. Pers (RCEME)  
 Tidy, D. J. MC of S UK  
 Treleaven, J. M. TSOIII VDE  
 Trevithick, J. D. 2 Coy Malton  
 Tuck, P. A. 197 LAD 27 CIB  
 Vollett, R. W. MC of S UK  
 Webber, L. E. 202 Base Wksp Montreal  
 Williams, E. A. Radar Course UK  
 Willing, W. R. RCEME School  
 Yarmowich, B. Ord School Aberdeen Md

#### LIEUTENANTS

Alexander, W. D. 2 Coy Malton  
 Babcock, B. E. On course RCEME School  
 Ball, G. E. RCEME School  
 Bateson, P. 6 Coy Halifax  
 Beach, R. K. 203 Wksp Quebec City  
 Bews, G. F. Scaling Sect DEME  
 Brent, G. N. DEME  
 Brodie, F. N. DEME  
 Burton, G. R. 20 Coy Wainwright  
 Bydal, L. N. 11 Coy Vancouver  
 Burcombe, P. L. 202 Base Wksp Tech Stores  
 Scaling Sect  
 Calvert, J. L. 212 Wksp Shilo  
 Carruthers, F. R. 3 Coy Kingston  
 Chapman, F. W. 25 Spt Wksp 25 CIB  
 Chapman, H. W. 17 Coy London  
 Chess, G. F. H. 212 Wksp Shilo  
 Clarabut, J. F. CADEE Valcartier  
 Clark, G. D. McGill University  
 Clerke, B. C. 214 Base Wksp Vancouver  
 Coates, J. E. 17 Coy London  
 Coombe, W. M. RCEME School  
 Connell, R. D. L. on course RCEME School  
 Conway, E. M. HQ Quebec Comd Montreal  
 Courtney, J. N. on course RCEME School  
 Creber, E. B. on course RCEME School  
 Crowson, J. S. 208 Wksp Ottawa  
 Daviss, L. A. 12 Coy Regina  
 Delaney, J. D. 200 Base Wksp Halifax  
 Duffield, T. E. on course RCEME School  
 Durocher, T. P. 3 Coy Kingston  
 Edmunds, H. P. 17 Coy London  
 Edworthy, H. T. CSRDE Ottawa  
 Etter, A. S. 202 Base Wksp Montreal  
 Evans, R. J. Reinf Officer 25 CIB

Fleming, H. S. 191 Cdn Inf Wksp 25 CIB  
 Foscett, T. J. 215 Wksp Calgary  
 Fougere, S. A. on course RCEME School  
 Fraser, D. H. 17 Coy London  
 Geary, D. V. OC 158 LAD Petawawa  
 Gladwin, C. H. 6 Coy Halifax  
 Grant, D. A. 11 Coy Vancouver  
 Groom, W. J. A. RCEME School  
 Hagan, G. M. RCEME School  
 Haggins, W. J. N. 2 Coy Malton  
 Hellyer, C. B. on course RCEME School  
 Hill, R. A. 25 Cdn Spt Wksp 25 CIB  
 Hill, R. V. 202 Base Wksp Tech Stores  
     Scaling Sect  
 Hogue, R. H. Ord Course Aberdeen Md  
 House, H. W. 23 Comp Bde Gp Wksp Petawawa  
 Hurst, C. A. 11 A & T Staff Vancouver  
 James, W. M. C Sqn LdSH 25 CIB  
 Jamieson, W. RCEME School  
 Joslin, K. R. 205 Base Wksp Camp Borden  
 Kane, J. J. 6 Coy Halifax  
 Klinec, J. J. DAD AHQ  
 Lane, N. G. 25 Cdn Spt Wksp 25 CIB  
 Leger, P. G. 202 Base Wksp Montreal  
 Lelacheur, J. W. RCEME School  
 Leonard, A. C. RCEME School  
 Libbey, R. W. 7 Coy Coldbrook NB  
 MacDonald, J. A. 16 Coy Whitehorse  
 MacFarland, H. E. RCEME School  
 MacMillan, E. 205 Base Wksp Camp Borden  
 Mahar, D. M. 210 Wksp Picton Ont  
 Martin, R. K. 202 Base Wksp Montreal  
 McIntyre, J. S. DEME  
 McKay-Keenan, R. A. 213 Wksp Winnipeg  
 McNaughton, F. J. 213 Wksp Winnipeg  
 Metcalf, J. G. E. DEME  
 Mildon, W. J. VDE AHQ  
 Moody, J. W. 16 Coy Whitehorse  
 Morgan, C. R. RCEME School  
 Mowbray, D. R. 12 Coy Regina  
 North, P. H. 18 Coy Fort Churchill  
 O'Brien, G. L. OC 190 LAD Wainwright  
 O'Connor, J. F. 4 Coy Montreal  
 Ormond, J. C. 205 Base Wksp Camp Borden  
 Parton, K. S. 10 Coy Winnipeg  
 Perry, H. R. DEME  
 Peters, R. on course RCEME School  
 Pfeiffer, H. C. R. DEME  
 Popkin, H. A. DEME  
 Prediger, P. J. RCEME School  
 Raby, J. R. 194 Cdn Inf Wksp 27 CIB  
 Richards, J. A. 5 Coy Quebec City  
 Rodgers, R. E. 25 Cdn Spt Wksp 25 CIB  
 Ross, D. N. C Sqn RCD 27 CIB  
 Royds, W. E. 16 Coy Whitehorse  
 Sainsbury, L. A. 213 Wksp Winnipeg  
 Sandilands, R. H. 194 Cdn Inf Wksp 25 CIB  
 Savage, G. D. 3 Coy Kingston  
 Seabrook, D. J. 17 Coy Mech Store Scaling  
     Sect  
 Shaw, R. N. 216 Wksp Chilliwack

Shaw, W. R. 205 Base Wksp Camp Borden  
 Sheehan, J. O. 202 Base Wksp Montreal  
 Stott, J. A. on course RCEME School  
 Stow, E. J. DEME  
 Sullivan, J. K. 2 Coy Malton  
 Svab, W. G. 4 Coy Montreal  
 Tevlin, J. J. RCEME School  
 Thomas, W. A. DEME  
 Virtue, W. W. RCEME School  
 Vyvyan, P. G. RCEME School  
 Wright, G. A. RCEME School

## 2nd LIEUTENANTS

(All 2nd Lieuts are on course RCEME School  
 except J. H. Cooper, 5 Coy Quebec City)

|                  |                     |
|------------------|---------------------|
| Bessey, P. E.    | Laviolette, N. E.   |
| Cavanagh, H. R.  | Lucano, W. F.       |
| Cook, H. E. C.   | MacGillivray, A. J. |
| Cooper, J. H.    | MacLeod, R. H.      |
| Duggan, K. F.    | St Onge, G. A.      |
| Hansen, P. E. V. |                     |
| Kennah, K. T.    |                     |

## SPECIAL FORCE OFFICER

Lieut J. R. Peters 191 Cdn Inf Wksp 25 CIB

**I**n an investiture at the Royal Netherlands' Embassy Tuesday, Craftsman Peter Adrian Visser of the Royal Canadian Electrical and Mechanical Engineers School at Kingston, Ont, received the Bronze Cross from His Excellency A H J Lovink, Netherlands' Ambassador to Canada.

The 27 year-old craftsman, who left his father's farm near Lethbridge, Alberta in 1942, to enlist with the Royal Netherlands Army during the Second World War, was being decorated for gallantry with that force.

Returning to Canada for discharge after the war, he joined the Canadian Army reserve force and came into the Active Force in June, 1951.



# ***STOP PRESS!***

## ***ADVANCE PARTY LEAVES***



Members of the advance party of 194 Workshop RCEME, under the command of Capt Tod Sloan, who left the RCEME School 30 Sep to proceed overseas. The OC Workshop, Major L Lodge, was on hand to see the boys off.

WOII D M MacPhee  
S/Sgt S C Brad  
Sgt P R Cunningham  
Sgt O M Westcott

Cfn M H Creamer  
Cfn G L McNelly  
Cfn J D Cutler  
Cfn F Mushing

Sgt S Flaherty  
Sgt D D Wilson  
Cpl T N W Ramsden  
Cfn F S Tepett  
Cfn M J Trudeau  
Cfn G Gendron  
Cfn S Erdelyan  
Cfn H E Robicheau

Cfn J A Dobie  
Cfn B Baker  
Cfn W G King  
Cfn E L Miller  
Cfn J F Reynolds  
Cfn A R Barr  
L/Cpl E G Doubleday